PLATEAU PERSPECTIVES
Community Development & Conservation

PROMOTING CONSERVATION & COMMUNITY DEVELOPMENT THROUGH ECOTOURISM

Experiences from valued conservation landscapes on the Tibetan plateau (Qinghai Province, China)

J. Marc Foggin and Chris Yuan

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Plateau Perspectives

Founded in 2000, Plateau Perspectives is an international charity that supports communities and organizations in mountain regions of the Tibetan plateau and Central Asia to find and develop long-term solutions that improve people's resilience and quality of life while protecting their natural environment, particularly under conditions of climate change and globalisation.

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Promoting conservation and community development through ecotourism: Experiences from valued conservation landscapes on the Tibetan plateau

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INTRODUCTION

The vast Tibetan plateau is globally unique. Bounded to the south by the Himalayan Range, it is by far the highest and most extensive highland in the world (Map 1). Extensive agro-pastoralism has been practiced for centuries, across generations; its arid and semi-arid grasslands have seen the development of a unique assemblage of wildlife, including one of the world's greatest migrations (such as the *chiru*, or Tibetan antelope) and the lasting presence of iconic and traditionally valued species including snow leopard, wild yak, and black-necked cranes; and many major rivers originate on the plateau, their headwaters providing crucial water resources and other goods and services for local and downstream populations. The population living within these rivers' watersheds and who depend on sustained provisioning of ecosystem services for their well-being account for around 40 percent of humanity, mostly in China and in the Indian subcontinent.

The Tibetan plateau also is recognized both amongst local Tibetan communities and across China for its ecological and conservation value. Traditionally, farmers and herders alike have depended on (or have been greatly impacted by) the region's environmental resources and harsh climatic conditions. Often 'living on the edge,' their livelihoods and well-being could be devastated by snow disasters, yet at other times they not only have survived but even thrived. Agropastoral occupations also have traditionally been supplemented by hunting, regional or long-distance trade, and engaging in a wide range of occupations as opportunities arose. In the oft unpredictable environment on the plateau, it is equally noteworthy that strategies of risk minimization generally superseded shorter-term profit maximization approaches in people's decision-making. In such an environmental and sociocultural context, ensuring the reliable and sustained availability of key resources is paramount in people's thinking, and an affiliated 'conservation ethic' has developed over time and has become central in Tibetan mental frameworks and outlooks. Such deeply embedded knowledge systems and related customary practices have been further reinforced by locally dominant religious imperatives, which now also are being advanced through an increasing number of institutions and community voices (Foggin, 2005, 2012, 2014; Weckworth & Li, 2013).

At the national level, this mountainous ecoregion is recognized both for the ecological services that it provides, especially as a critical source of water for the large downstream populations in China, and for its special native mountain wildlife, including rare, endangered and endemic species. For these and other reasons, much of the plateau has been the target of many 'green' initiatives (Xin 2008) or designated as 'protected' under provincial and national legislations, including many nature reserves (Table 1), forest parks, geoparks, and other forms. Most recently, China has focused on developing and trialling a new national park system (Map 2), including the first park to be launched in Qinghai province in 2020 (Box 1). Most pertinent from local perspectives – inasmuch as local communities could either gain from, or be harmed by, the creation of formal protected areas[i] – approaches centred

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on 'collaborative management' have been gaining traction in China (Foggin, 2012) and are planned in the present case too, notably with development of a community ranger system (Foggin, 2018a; Yan, 2019) aiming to support two fundamental pillars of the Sanjiangyuan National Park (pers. comm., SNP administration bureau science director, August 2018): environmental conservation, and local community development.

In recent years, the potential for tourism to benefit local and national economies has been noted as well, with an increase of over 50 percent in the number of domestic trips in China over the past 10 years, with an estimated 2.38 billion trips expected in 2020. The tourism sector contributes over two percent of the country's GDP (Han 2019). Although Qinghai Province (situated to the north of Tibet Autonomous Region) is amongst the least visited regions, the tourism sector in the Tibetan plateau region also has steadily grown over the past decade, with a more than three-fold increase in tourist trips and a seven-fold increase in tourism income – thus providing a substantial source of revenue for residents, especially for those communities who live in conservation zones where other forms of development are forbidden or significantly restricted (L. Wang, Zeng, and Zhong 2017). By way of comparison, national tourism revenue recently has grown in China at a rate around 12 percent annually, which constitutes only a three-fold increase over a 10 year period (Han 2019).

Growth in the tourism sector also has taken place inside local and national nature reserves and other forms of protected areas, albeit with mixed purposes and outcomes (G. Wang et al. 2012; Zhong et al. 2015). Clearly, then, across the entire region and both in and outside of conservation zones, there is need for a more clearly defined tourism strategy (Fox et al. 2008), especially for the national parks planned.

In the meantime, for better or worse, the sector continues to grow – and this often encouraged and supported by local, provincial and national government authorities, but unfortunately mostly with inadequate consideration given to the range of ancillary benefits that the development of tourism could bring for people and nature if properly planned, or of the potential social and environmental risks if left unchecked.

In light of the enormous value of the Tibetan plateau ecoregion for local people as well as national and global communities, along with recognition of the scale and extent of tourism in China, and its trajectory, a key question thus emerges: *For what purposes – and for whom – should tourism be encouraged?* And additionally, *What forms of tourism are best suited for the desired purposes?*
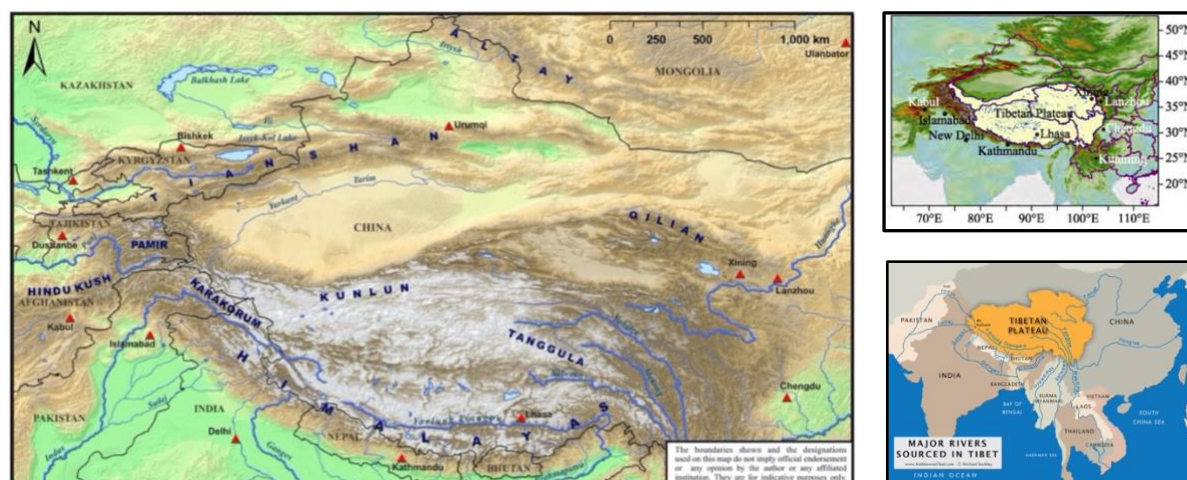
Map 1. The Tibetan plateau and mountain regions in western China and Central Asia (Foggin, 2018a), smaller maps showing location of the Plateau in China (Y. Zhang et al. 2016) and Asia (Buckley, n.d.)

When properly defined and understood, ecotourism clearly holds a special place amongst tourism approaches or strategies, as ultimately ecotourism focuses on purpose and outcomes, rather than the location, activities, or assets available. Box 2 provides a basic typology of tourism approaches, including ecotourism (with more detail provided in Appendix 1). In short, ecotourism is a form of

Name of nature reserve	Area (km^2)	Type of protection	Admin level	Date established
Qiangtang (Changtang)	300,000	Desert	National	July 1993
Sanjiangyuan	150,000	Wetland	National	May 2000
Altun Mountains	45,000	Desert	National	Jan 1983
Hoh Xil (Kekexili)	45,000	Wildlife	National	Oct 1995
Selincuo	20,324	Wildlife	National	Jan 1993
Yanchiwan	13,600	Wildlife	National	April 1982
Changshagongma	6,698	Wildlife	National	Dec 1997
Zoige	1,666	Wetland	National	Nov 1994
Mid-Kunlun Mountain	32,000	Wildlife	Provincial	Jan 2001
Taxkorgan	15,000	Wildlife	Provincial	May 1984
Manzetang	3,659	Wetland	Provincial	Jun 2001

Table 1. Nature reserves on the Tibetan plateau (non-exhaustive list) (Y. Zhang et al. 2016). A fuller list of nature reserves and other important areas on the Tibetan plateau is provided in Appendix 2.

Map 2. Location of 10 national parks currently under trial operation in China's recently established National Parks System, including the Sanjiangyuan National Park in Qinghai Province (CGTN 2019)

Box 1. Sanjiangyuan National Park

The Sanjiangyuan National Park (SNP) is set to open in 2020 (China Daily 2020), the first in a network of parks to be launched under China's new national park system. The park intends to serve as "a role model of eco-protection and institutional innovation… serving as a reference for its peers" (Huan 2018).

Located in southwest Qinghai province, the park encompasses a vast area of 123,141 km^2 – around 13 times larger than Yellowstone National Park, USA – and contains many alpine ecosystems rich in biodiversity, home to over 1,000 species of plant and animal species, as well as being home for at least 64,000 residents, mostly Tibetan pastoralists. As the first national park to be established in China, the approaches and models that are developed and implemented here will help inform and guide the functioning of subsequent parks – including the innovative governance arrangement and management measures aiming to jointly meet the needs of nature and of people ("Independent Evaluation of Sanjiangyuan Pilot National Park" 2020). Development of this national park over its three-year trial phase built on earlier experiences under the prior nature reserve, which is when community co-management approaches and other forms of engagement with local people first emerged. The UNDP GEF-supported *Qinghai Biodiversity Conservation Project* (2013-18) further strengthened earlier co-management ventures such as the *Yicun Yidian* (One village, one station) collaborative conservation project supported by NGO Plateau Perspectives, and helped to embed community-centric approaches into protected area legislation at the provincial level (Foggin, 2012, 2018; Paxton, Scott, & Watanabe, 2016; UNDP China, n.d., 2013). A study tour co-hosted by Parks Canada and Plateau Perspectives to visit Canada's mountain parks in 2010 further clarified for the nature reserve's management authorities the numerous opportunities presented by co-management approaches, including its value for raising the public awareness of environmental matters, community engagement in environmental monitoring and research, and issues pertaining to tourism development in/near protected areas (Foggin, 2018a). All of these efforts were, furthermore, built on even earlier community-driven initiatives (Foggin, 2000, 2005), which should remind us how, even in the case of so-called 'national' parks, the prior and fundamental roles of local communities – through formal or informal community conserved areas (A. Kothari and Neumann 2014) – should not be overlooked or forgotten, as local people remain the longest-standing custodians of the environment and are best placed to contribute to the desired conservation outcomes (Sobrevila 2008).

In light of this, a system of community rangers, or wardens, has been trialled and now is integrated in the inaugural park that is to be established under China's new national park system (Foggin, 2012, 2018a; Yan, 2019). "Under the national park management, herders and farmers will be turned into the central forces of environmental protection at Sanjiangyuan [and] expected to provide jobs, boost farmers' incomes and give them an incentive to protect the environment" (Xinhua 2017). The national park has already "not only protected ecological environment, but also improved livelihood for local people [employing] nearly 18,000 rangers from local community, offering 1,800 yuan for each ranger every month" (Shang 2019). Integrated with poverty alleviation plans, 7,421 stations (or 'public welfare posts') have been established for ecological management and protection "to ensure that every registered poor household has an officer [community ranger] [and that] herdsmen … will gradually transform into the protectors of the ecological environment and gain the dividend as protecting the ecological environment" (Peng 2018).

Community-based ecotourism is another way that local families in the Sanjiangyuan region can benefit from the environment, while ensuring its continued protection. "Households in the region are now allowed to host tourists after receiving the relevant training, [though] each household can only receive three groups of visitors a year" (Huaxia 2019). Specific recommendations for tourism in China's national parks have not yet been developed, however global guidelines are available for protected areas generally and for mountain regions (Sweeting 2007; Leung et al. 2018).

In China, the Chinese Academy of Sciences and Qinghai provincial government have established a new research institute focused on national parks, the *Sanjiangyuan (Three Rivers) National Park Research Institute*. According to the director of the new institute, Dr Zhao Xinquan, the aim is "to realize the coordinated development of ecological protection and regional economy" (CAS 2018).

tourism that simultaneously contributes to the well-being of local people and communities and to promoting conservation through tangible actions or partnerships, along with a significant focus on capacity building and education. Notably, ecotourism is not merely tourism that is situated within landscapes of great beauty or in places where wildlife is present – this is simply nature tourism – rather, ecotourism is much more than this, as it is fundamentally more concerned with outcomes than assets, outcomes achieved through the partnerships developed and the activities undertaken.

By definition, ecotourism should also be both responsible and sustainable. The reverse, however, is not always the case, as the fact that any particular tour is responsible or sustainable does not itself imply or necessitate that such a venture be shaped as ecotourism *per se*; such attributes simply point toward their straightforward characteristic-based tourism typological namesakes.

Box 2. Tourism typologies   *See Appendix 1 for more detailed explanations*

Different forms of tourism are introduced here, organized according to their basic characteristics, geographic location, broad purpose, or assets available. This is not an exhaustive list of all types of tourism, but rather is focused on those forms or categories of tourism that aspire to be, or are assumed to be, sustainable in some way or other. The Global Sustainable Tourism Council (GSTC) recommends baseline standards for sustainable travel and tourism, with standards targeting hotels and other accommodation, tour operators, destinations, certification bodies, and travellers (see, e.g., GSTC-Recognized Standards for Tour Operators; GSTC, n.d.).

BASIC CHARACTERISTICS

Sustainable Tourism – Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities

Responsible Tourism – Tourism that makes better places for people to live and better places for people to visit

GEOGRAPHIC FOCUS

Mountain Tourism – Sustainable tourism in mountain regions with their distinctive characteristics and attributes including landscape, topography, climate, biodiversity, and local communities, also encompassing a wide range of outdoor leisure and sports activities, and holding significant potential to stimulate local economic growth

Tourism in Protected Areas – Tourism in or near protected areas, including ventures organized by external agencies largely as nature tourism as well as more community-friendly tourism focused on either natural or sociocultural assets

PURPOSE DRIVEN TOURISM

Community Based Tourism – Tourism centred on local assets and community level benefit, manifesting progressive characteristics such as community empowerment, care for the environment, and special attention given to social justice and equity

Ecotourism – Responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education for both staff and guests

ASSETS-BASED TOURISM

Nature Tourism – Leisure travel undertaken largely or solely for the purpose of enjoying natural attractions and engaging in a variety of outdoor activities

Culture Tourism – Travel with a primary purpose of experiencing and learning about other cultures, or viewing and engaging with particular cultural events, historic sites, current or traditional livelihoods, ways of life, etc.

BACKGROUND

The authors have worked on the Tibetan plateau since 1998, cumulatively for over 30 years. Most of their efforts have focused on communities and landscapes in the Sanjiangyuan region and in vicinity of Qinghai Lake (Map 3) and have been of a very practical nature, i.e. applied or 'action research' in which "learning-by-doing" with reflective design and adaptative management approach has been a common denominator across the majority of initiatives. In most instances, the report authors also have worked in close collaboration, over many years, with a wide range of stakeholders including government, civil society, local communities, academia, and others.

Based on the authors' first-hand knowledge in development of the tourism sector in the heart of the Tibetan plateau (and more broadly in sustainable mountain development) supplemented by findings from published academic and development literatures, this report seeks to highlight both emerging successes in the community-based ecotourism ventures that they have co-designed and trialled with community members in the field, and challenges they have encountered along the way. Key lessons will then be extrapolated, followed by a broader discussion of tourism and sustainable development.

Special attention will be given herein to the important role that ecotourism can play to advance the conservation (through both protection and sustainable use) of highly valued ecological landscapes on the Tibetan plateau. Important conservation landscapes come under a wide variety of names,[ii] and how they have developed over time and how they can be used (or are allowed to be used) can greatly affect future socio-ecological outcomes.
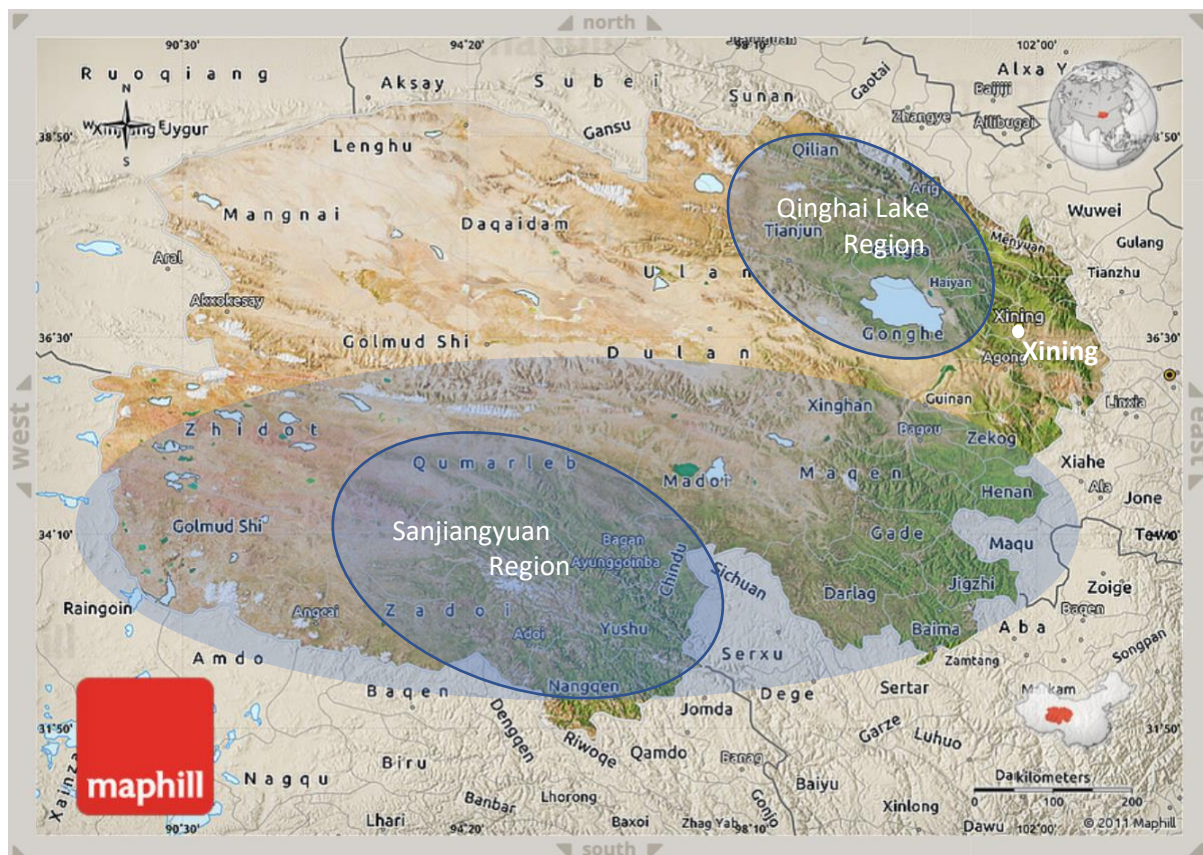
Map 3. Qinghai Province, including the provincial capital, Xining, and the authors' two main project areas shaded and outlined (and the larger Sanjiangyuan region shaded) (adapted from maphill, n.d.)

With regard to the development of ecotourism in these valued landscapes, in addition to adhering to its three core tenets – i.e. positively contributing to conservation outcomes, community benefit, and education – the authors also sought through their field work to advance the concept of "purposeful tourism" (Foggin 2020) even further... Specifically, they aimed to support through their co-developed ecotourism ventures locally driven conservation efforts, and thus to encourage and strengthen local community conservation actors. Through such targeted means, they also have been able to mobilize members of society and to enhance social cohesion at the community level, and thus to increase commitment for common good, both social and environmental, in tourism and affiliated sectors.

CASE STUDY

Context and development process

The comprehensive ecotourism initiative supported by the authors has been embedded in many long-term personal and community-level partnerships in the region. Some of these date back to 1998 when both Plateau Perspectives[iii] and the Upper Yangtze Organization[iv] were founded and began to engage in collaborative projects, while others developed later, e.g. under collaborative work undertaken in the framework of the *Yangtze Headwaters Sustainable Development Project* (2004-08)[v] or within the emergency relief work undertaken in response to a massive earthquake that devastated Yushu in April 2010[vi] and during the subsequent livelihood rebuilding programs supported by Plateau Perspectives and D-Starine (later, Horseback Planet)[vii] in following years.

Further, several formal development projects with support from the Government of Norway, Ford Foundation and elsewhere provided supportive enabling contexts as well as the necessary human and financial resources to trial different aspects of community-friendly and -beneficial ecotourism, including participatory training workshops and especially several valuable study tours. Initial work undertaken in 'ecotourism development' sought mainly to encourage and enable communities to develop their own tourism related enterprises while simultaneously strengthening community conservation efforts. The study tour in the Gurvan Saikhan region in the Gobi Desert in southern Mongolia in 2008 was particularly insightful, and led our partners to consider new approaches in community mobilization and governance, conservation, and business development – ultimately leading to them to establish the Kegawa Herders Cooperative and, through this, to trial tourism ventures including homestays and development of handicrafts, as well as 'value-add' for their livestock products, such as yak wool.[viii]

Following the Yushu earthquake in 2010, the authors joined ranks, first in disaster relief and then also in tourism development – the latter responding in particular to an emerging favorable policy environment that encouraged the development of tourism as an alternative to livestock-oriented economies. In the ecologically important but fragile region, namely the headwaters of the Yangtze, Yellow and Mekong rivers (or Sanjiangyuan region), government sought to find ways of diversifying local economies in order to decrease grazing pressures on the grasslands and to reduce the people's dependence on livestock. Both public and private sectors equally recognized the abundant cultural and natural assets, namely the extraordinary mountain and grassland landscapes, the unique local nomad culture, and the region's rich biodiversity – providing great potential for tourism to develop and grow in the region. With policies in place, much economic benefit *could* arise for communities; however, just as likely if not more so, there could also be significant *leakage* in the tourism sector, with most socio-economic benefit going to entrepreneurs and corporations far removed from the Yushu area...

Aiming to maximize opportunities from tourism for local communities, and building on the abundant assets both natural and sociocultural, the authors began to focus their attention on developing and strengthening ecotourism. However, even with much government and public support for the notion, it remained unclear just how much of the purported benefits of ecotourism could in fact be garnered for local stakeholders. For this reason, from 2010 to present, the authors' central focus and aim has been two-fold: firstly, to clarify and advocate for due recognition of what is, and what is not, genuine ecotourism; and secondly, to trial (and thus demonstrate) ecotourism in practice, ecotourism driven by its three core purposes. In this way, the authors sought to build on local assets and opportunities, to strengthen the agency of communities in the development and conservation, and to reduce the amount of leakage in the emerging tourism sector and its many related business opportunities.

Several months after the earthquake, in September 2010, a group comprised of community leaders, tourism practitioners and management authorities from the Sanjiangyuan National Nature Reserve participated in a study tour co-hosted by Parks Canada and Plateau Perspectives, to visit and learn from mountain national parks in Western Canada.[ix] This opportunity was particularly fruitful in that it helped open the eyes of several senior partners to the cross-cutting roles that may be played by tourism. The study tour also highlighted the value of adopting more 'horizontal' approaches in the analysis of development policies,[x] which is arguably necessary if a carefully considered, systematic (hence, scientific) approach to sustainable development is desired.[xi] Contributions that communities can make in environmental research and monitoring also were noted in Canada's mountain national parks – such public engagement in research is broadly recognized under the aegis of citizen science[xii] – and benefits arising from public-private partnerships in the tourism sector likewise were noted.[xiii] In such ways, several important elements for successful 'co-management' were observed first-hand, and these have subsequently been integrated into Qinghai Province's nature reserves[xiv] and then later also transferred into the new Sanjiangyuan National Park (Foggin, 2018a; China Daily, 2020).

As noted in many communities around the world, the potential of ecotourism is unique, as at a very fundamental level it supports – and by definition *must* support – both environmental conservation and community development objectives. With these dual objectives in mind, and considering that China's national parks also count both of these as its fundamental pillars, it would then be natural for ecotourism practitioners and government authorities alike to step up and develop appropriate (eco)tourism strategies for all of the country's protected areas and other conservation landscapes that equally support these objectives. It is in support of these very purposes – that is, conservation and community development, along with documenting experiences for informing the development of appropriate strategies – that the authors have engaged over these past few years[xv] in developing a practical model of tourism in the Tibetan plateau region that can in fact deliver the desired results.

In regard to the development of ecotourism in the Tibetan pastoralist region, three main elements or aspects have emerged: (i) guide training, (ii) development of local networks and teams, and (iii) promoting, developing and/or strengthening favorable enabling environments, including policies as well as systems for accreditation and certification of ecotourism ventures. These three elements are further introduced below, each in turn, followed by an introduction to several real-world community members (local partners) whose personal experiences shall help us to understand more deeply certain key aspects of tourism development that were enabling or supportive for them, or sometimes hindering…

Finally, a synthesis of major findings from this 'action research' will be offered, to highlight synergies that can occur between ecotourism and sustainable development in valued conservation landscapes on the Tibetan plateau, the world's highest and most extensive mountainous region and a unique, fragile social-ecological system.

Ecotourism guide training

Capacity building has been necessary for guides and other local tourism entrepreneurs, in order to ensure that client expectations are predicted, on one hand, and that appropriate skills and services are in place, on the other hand. Proper health and safety must also be considered. Additionally, an expanding suite of options should be developed at each venue, including both activities and objects of interest – whether to see or to engage with, including landscapes, wildlife, cultural events, etc. – with the aim of making these available to the clients in order to maintain high levels of interest and, ultimately, lengthen the time they spend (and resources they invest) in each area or community. A comprehensive and detailed knowledge of the local geography, natural history, culture etc. also will always be well received by guests. We found in many instances that basic project management skills equally need upgrading, along with financial literacy, as well as fluency in various foreign languages. To help improve the local situation, a basic curriculum was developed by Horseback Planet Society – and this has been delivered to many local ecotourism guides, most often *in situ* i.e. with field-based, on-site training. Content has thus been developed from the ground up, according to local perceived needs or new opportunities identified, and it has been refined annually. HPS specializes in particular on strengthening local entrepreneurs for delivering memorable and safe horse-riding experiences, combined with instilling or strengthening an environmental ethic amongst the guests or promoting conservation outcomes through environmental monitoring or other activities that are supported by the entrepreneurs themselves. In parallel, a personalized 'log book' system has been developed to encourage clients and guides alike to document their particular experiences and observations, and to track personal progress in skills such as horse riding or archery and to capture their key personal observations including both sociocultural and environmental reports. Furthermore, both guides and clients receive personal certificates for each field trip – or the specific training workshops that they successfully complete during the trip – leading toward an eventual program-level certification, and, in due course, to higher level accreditation.

Ecotourism teams and networks

Several ecotourism teams have been established since 2016, both in the Sanjiangyuan region and around Qinghai Lake nearer the provincial capital, Xining. Each of these teams is comprised at least of 2-3 people, and often more, from their respective communities. In some places a dozen people are working together. Working in teams – and networks of teams – has not only encouraged the sharing of real-life experiences and practical know-how, much peer-to-peer sharing/learning and mutual encouragement also have been enabled. Learning and encouragement have occurred, for example, through public lectures, multi-day workshops, and various interactions on social media.

A recent example is the skills development, teaching and networking project that took place on the south shore of Qinghai Lake in December 2019. Organized jointly by Horseback Planet Society and Plateau Perspectives, this three-day workshop sought to build participants' capacities, encourage networking and horizontal learning, and tool them with new skills – as well as to encourage and motivate the participants to persevere in each of their particular ecotourism and conservation endeavours and thus advance the development of purpose-driven tourism. During the workshop, training was given in horseback archery, culminating in a competition; personal experiences were shared about tourism development, including restoration of culture in traditional architecture and building techniques applied to the launch of a family guesthouse; CPR training was provided, with certificates provided for successful completion; practical experiences in videography including the use of drones was shared amongst participants, as the majority of workshop events were filmed; and finally, human bonds born of common purpose and shared experiences developed, and have been strengthening over the months since the workshop through the regular use of social media.

Finally, in addition to training local guides and creating opportunities for teams to develop and learn from each other, several formal workshops were organized over the past several years, with the aim to create opportunity for local and provincial government, protected areas, the business sector and community representatives to discuss and learn more about ecotourism… and in particular to learn about potential cross-cutting benefits of ecotourism, if suitably designed and put into practice. In this way, more favorable (i.e. enabling) environments for community-beneficial (eco)tourism have been encouraged – recognizing in particular linkages poverty alleviation and with conservation. For example, socioeconomic benefit can be derived with increased employment and revenues accruing directly to members of local communities. Conservation benefits, for their part, can arise in several ways: by adopting practices that do not harm the environment; by raising environmental awareness of guides, clients, and communities alike; and most significantly through direct conservation action, whether undertaken by the tour guides, local communities, or guests themselves. When such socio-economic and conservation benefits are considered collectively, the case for promoting ecotourism over and above other forms of tourism is clear and strong.

The final step that has yet to be fully operationalized, within the HPS model, is to develop a standard training program for local guides and tour operators, along with a more robust system to recognize achievements, i.e. ecotourism certification. Further, in due course such recognition must come not only from HPS, but must be more generally endorsed by the private sector as well as government – with tour operators, government staff and community members alike potentially benefiting from a well-defined, widely recognized, and suitably certified program of study. Toward this end, HPS has examined in detail the training and accreditation system developed by PADI[xvi] since it was founded in the 1960s, and it is now adapting this system for the tourism sector, particularly for ecotourism, which, like PADI, "is committed to be a force for good" (PADI Worldwide 2017b).

Maintaining a strong focus on *tourism-for-development*, that is, starting from the perspective of local mountain communities and their own needs, interests and aspirations (rather than starting from the perspectives of tour operators or potential clients), ecotourism hold much good potential – yet more still needs to be done to adequately raise awareness amongst planners and decision makers about the purpose-driven nature of ecotourism, hence the latent value it may hold for multiple sectors.

As *reminder*…

> ***Ecotourism is…***
> *responsible travel to natural areas*
> *that conserves the environment,*
> *sustains the well-being of the local people,*
> *and involves interpretation and education*

Glimpses into representative personal stories

Three short biographies are now offered, as they are indicative of some of the significant personal and professional advances that have been made and benefits derived from the community-based, conservation-oriented ecotourism ventures undertaken as part of the Horseback Planet Society's (HPS) model of development over the past several years.

One man on the east shore of Qinghai Lake used to be unemployed, only sometimes herding his family's sheep and yak. He sometimes would travel to the nearby town and he often would drink, sometimes even fighting several times a day. When he did start a small operation, a tent-hotel, he provided only minimal service and cheated his customers as opportunities arose. However, through a friendship that developed with one of the authors (CY), over time he began to reconsider the type of life that he wished to live, the legacy he wished to leave, as well as the pragmatic 'business sense' of adopting a longer, broader vision for his business… relating to his guests as 'partners' rather than ATM machines good only for single withdrawals. Encouraged and supported by HPS, this particular man invested in establishing a horse riding camp in 2016 and he now has several tents and 6 horses. He often provides for clients directly, and also opens his desert camp as a training base for others. Altogether, he now provides employment for 5 people. Additionally, having recently gained interest about local fauna, he now regularly monitors and protects native wildlife including the grey wolves that roam his lands and especially the endangered black-necked crane.

Another person also established a horse riding club on the south shore of the Lake, mainly serving day-trip tourists that drive the southern highway in summer. Having started with six horses in 2016, he has grown his operation significantly and now owns 30 horses and offers part-time employment for at least five other community members. He also has helped spawn a second ecotourism business amongst his relatives and he regularly offers his eco-camp for training purposes (such as the training and networking event held in December 2019; see Figure 1). Wolves, foxes, marmots and jerboas (kangaroo rats) are regularly seen in this area. In addition to horse riding, he and others in the HPS network are creatively introducing a range of novel activities such as horseback polo, archery, kite flying, and simulation of space ventures (Figure 2).
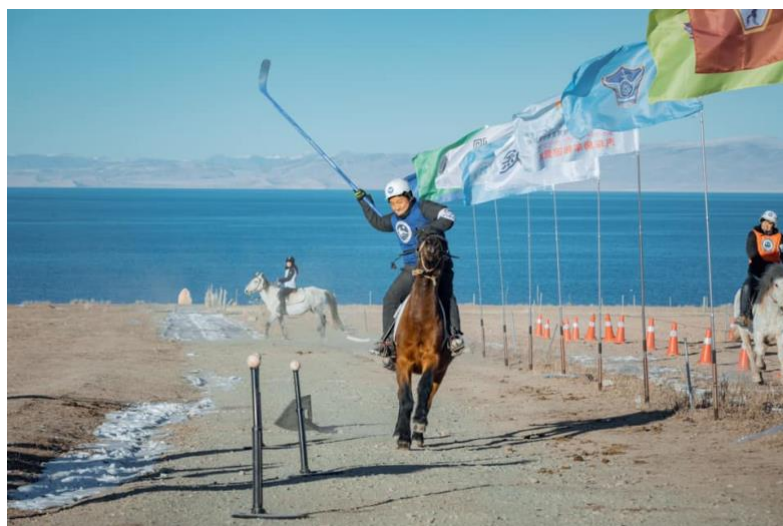
In the snow-capped Qilian Mountains north of Qinghai Lake, two partners are working together in similar fashion. They established the *Qilian Sky Ranger Horse Riding Club* in 2016, which now already receives more than 5,000 visitors annually and employs 15 local community members. They have introduced river rafting and rope climbing in forested areas, along with monitoring of snow leopard with camera traps (Figure 3). A riverside camp has been established where urban youth may come to experience nature, where opportunities abound for gaining new appreciation of local wetlands and birdlife. A range of winter tourism opportunities also are being explored (Figure 4) and already have received positive feedback from provincial tourism authorities. Regionally, this mountainous area is home to snow leopard, brown bears, red deer, and many other native wildlife species.

Figure 1. Training and networking event on the south shore of Qinghai Lake

Figure 2. Many outdoor activities are being trialed by HPS network members in the Qinghai Lake area in northeast Qinghai Province, and beyond. Activities including (a) horse riding on the lake shore, (b) horse polo, (c) archery, and even (d) 'space' tourism! The lower image (e) recalls the breadth of activities, the skills learned and the team dynamics present in the course of the 3-day workshop held in December 2019 – an excellent dynamic that has continued in the subsequent weeks, largely facilitated by social media platforms such as WeChat and typical of HPS generally.

Figure 3. Snow leopard photograph taken by an automatic 'camera trap' set in collaboration with local Tibetan herders in a co-management project in the Sanjiangyuan region, at 5,000 m in the mountains (Foggin, 2018a).

Figure 4. Winter tourism is developing in Qinghai province, illustrated here with a portrait from one of the first games in a family-oriented hockey league launched in January 2020.

Lessons learned

Based on our firsthand experiences and observations over the past decade – and considering these across multiple, interconnected dimensions of sustainability – several high-level observations are noted here. These lessons we have learned may each stem from a particular context or event, yet they deserve attention as they also are regionally relevant with potentially wider application.

(1) Mountain communities involved in decision-making – in tourism, as in other sectors – tend to exhibit a **greater sense of ownership** of ventures, and thus often participate more fully in these ventures and are more deeply vested in ensuring their long-term sound development, and ultimately overall project success.

(2) Community-based ecotourism can be leveraged to promote **environmental education and awareness**, to develop local partners' **personal and professional capacities**, and to promote **socioeconomic development** in mountain regions – also broadly contributing to a strengthening of peoples' sense of well-being, contentment, and social stability.

(3) By strengthening civil society – including capacity building, leadership development, and fostering the creation of professional and activities-based networks – much support and encouragement are given and received and **peer-to-peer learning** is facilitated. In many instances a **sense of hope** increases, leading to greater engagement in developing new options. Hope is a powerful force and can lead toward the development of sustainable solutions, incorporating realities of people, nature, economics, and politics.

(4) **Ecotourism** *by definition* includes **three main component parts** – enabling or supporting tangible conservation outcomes, bringing direct benefit to communities, and advancing education and awareness. When these are all demonstrably brought together, there is **competitive advantage** (from a marketing perspective) for the leading communities.

(5) **Branding** ecotourism ventures (as is done with Horseback Planet Society, HPS) also helps develop **human networks** and ensuing formal and informal patterns of exchanges, along with building a strong **sense of loyalty** and **commitment** to the underlying values and purposes that gird these ventures. Such networks can bring significant encouragement, knowledge and strength to the participants, including both local players and the guests.

(6) Finally, ecotourism may be considered as part of an **integrated ecosystem management strategy**, i.e. development that builds upon available assets and seeks to achieve a range of goals simultaneously. As such, it should be seen not as a livelihood replacement (with loss of all other forms of livelihood) but rather as a complementary approach that adds value to the already present range of development options available. When ecotourism and other livelihood options are implemented collectively, they **strengthen adaptability and resilience** in the local mountain community in the face of rapid environmental and global changes, by increasing the overall diversity of actions and responses available to them for ensuring their long-term futures.

At a personal level, the authors also have noted that in addition to professional development of the partners, behavioral changes also have taken place (e.g., working with honesty and integrity). All of the partners including the authors themselves have gained much from the trusting relationships that have developed over time. However, without the necessary commitment and investment of time and energy, it would not have been possible to develop and sustain the significant relationships upon which such partnerships are founded. Thus, any further 'scaling up' of key approaches and strategies

still will depend, crucially, on 'the human factor' – in addition to good ideas, sufficient financial resources and technical training, and the presence of suitably supportive and enabling sociopolitical environments.

The key observations or lessons, as outlined above, serve as a reminder of the range of actions or approaches that can be fruitfully undertaken or advanced through ecotourism, on one hand, and also the long-range purposes for which such actions should be advanced (i.e., as opposed to other approaches), on the other hand. In short, ecotourism has an important role to play and should be promoted because, at core, it is *purpose-driven* tourism, and thus aims to meet the various needs and interests of many different stakeholders, but especially of the local communities themselves.

DISCUSSION | STRENGTHENING ECOTOURISM ON THE TIBETAN PLATEAU

As outlined by Shokirov et al. (2014) and others, the overall sustainability of (eco)tourism ventures in mountain regions can be assessed through 12 fundamental dimensions (UNEP and UNWTO 2005). In our experience, as described herein, all of these dimensions have been advanced through the varied development and conservation measures that we have applied over the years with partners, albeit it to varying degrees.

The key fact to keep in mind is that tourism should not to be developed *for its own sake*, or for the sake of the external stakeholders, i.e. the tourists or tour operators; nor should it be measured – if sustainability or community wellbeing are considered important – simply by the overall number of tourists that travel through an area, or the amount of funds invested, spent, or raised for a region. Rather, beginning from a local perspective, from that of communities and the natural environment, tourism is best seen as a valuable *tool*, which can be used for achieving particular explicit goals. In the case of ecotourism, these goals are already clearly embedded in its very definition, even if in many instances ecotourism is (wrongly) assumed to be simply synonymous with nature tourism, adventure tourism, community tourism, etc.

Concerning the vast Tibetan plateau region, most national and international attention has focused on its great environmental significance, particularly as a source of water for local and downstream populations. Rare, endangered and endemic wildlife species also have been of some concern. At the same time, there is clear recognition of the importance to bring about a 'harmonious society' that is 'socially stable' and that perceives itself to be at least 'moderately' well-off and sufficiently content. For these purposes, China's government has given great attention to advancing the alleviation of poverty, developing transport and communication systems, promoting educational opportunities, and strengthening health and other social services in Qinghai province. Yet, continued tensions are oft perceived between conservation and development goals, for which mechanisms such as China's signature ecosystems-oriented 'red line' approach to development zoning (Jiang et al. 2019) and the development of formal protected areas are being advanced. To bridge such apparent sectoral gaps, a more comprehensive 'circular economy' also is promoted (C. Liu and Côté 2017), with the aim to ensure full protection of China's underlying ecological resources (W. Xu et al. 2017; J. Liu et al. 2008) while providing for people's needs and aspirations. Within such a comprehensive vision for China's future, we have shown how ecotourism is demonstrably able, if judicially developed and applied, to serve as a contributing sector for both environmental conservation and community development.

The Sanjiangyuan National Park will be the first national park officially established in China, with a launch date set later in 2020. Additionally, while conservation in China had largely been conducted along strictly protectionist lines, particularly through its provincial and national nature reserves, the new system of national parks presents a more balanced model (He et al. 2018; Cao, Peng, and Liu

2015; W. Xu et al. 2017; Wei 2017). But beyond formal parks, we also should recall the many local communities and indigenous peoples who for generations been have been protecting and using the landscapes sustainably. As long-standing (original) owners or custodians of the environment across much of the world, their recently increased global recognition and appreciation are rightly deserved.

Considering the conservation value placed on many Tibetan plateau landscapes, whether this be by local communities themselves or by national authorities with a 'common good' perspective for the nation as whole, it is inescapable that environmental conservation is – or should be – a fundamental concern in all investments and interventions, not only for conservation efforts. As Dilys Roe and her co-authors have succinctly written, "biodiversity loss is much more than an environmental problem – it is an urgent development challenge," and one that is "hitting the poorest communities first and hardest (Roe, Seddon, and Elliott 2018)." In the tourism sector, renowned for its economic potential, ecotourism clearly has a very significant role to play – for both people and nature.

Protected areas, inclusive of indigenous and community conserved areas (ICCAs), also may serve as tools in our collective attempt to adapt to climate change (Garnett et al. 2018; Eagles, McCool, and Haynes 2002; Gross et al. 2016; Roe, Seddon, and Elliott 2018). Furthermore, in ICCAs or Territories of Life, non-consumptive uses of resources such as with purpose-driven ecotourism hold significant promise for advancing multiple purposes simultaneously. However, it remains important that the mountain communities themselves maintain significant 'agency' or authority in making decisions; lest people be seen only as assets for cultural tourism, just as mountains, glaciers and wildlife are seen only as asset within nature tourism.

Listening not only to external specialists but also to *people's voices* who have long lived in the region is essential, as each party has its own and often very different knowledge system, sometimes even different 'ways of knowing.' Recognizing a multiplicity of voices is critical to ensure development is fair and equitable – two essential ingredients of sustainability (Jonas et al., 2017; Stevens, Jaeger, & Pathak Broome, 2016). Looking deeper still, a further question arises: *Who is partnering with whom? Who is 'including' who?* (Farvar et al. 2018). In their list of global priorities for sustainable mountain development, Makino et al. (2019) note in particular that government policies can have far-reaching consequences, often extending far downstream. They note, moreover, that any issue that may lead to further marginalization of mountain communities must be heeded as of paramount importance, and guarded against– including aspects of tourism touching upon livelihoods and cultural heritage. For these reasons and more, being community-centred and purpose-driven, ecotourism is noted here to hold an especially important role for advancing sustainability, with equity and fairness, across the Himalayan and Tibetan plateau regions.

In closing, for local Tibetan herders and communities for whom an appreciation of the value of the environment comes naturally, including alpine grasslands and wildlife – the latter being sometimes described as *the jewels of the land* – the imperative to protect resources is not difficult to recognize. The realization that both development and conservation must be advanced simultaneously has been evident to them for generations. In more recent times, however, with pressures from globalization and loss of socio-cultural heritages, many people fall into a trap of seeking shorter term gains and benefits, albeit at a steep long-term cost to self and others. In the tourism sector, and considering the three pillars of sustainability, the potential role of ecotourism for attaining both goals is clear, when it is based on genuine partnerships and integrated, holistic approaches. Working together, ecotourism can make critical contributions for mountain people and sustainable mountain development, across the Tibetan plateau and globally.

REFERENCES

Bai, Yang, Christina P Wong, Bo Jiang, Alice C Hughes, Min Wang, and Qing Wang. 2018. "Developing China's Ecological Redline Policy Using Ecosystem Services Assessments for Land Use Planning." *Nature Communications* 9 (1): 3034. https://doi.org/10.1038/s41467-018-05306-1.

Berkes, Fikret. 2009. "Community Conserved Areas: Policy Issues in Historic and Contemporary Context." *Conservation Letters* 2 (1): 20–25. https://doi.org/10.1111/j.1755-263X.2008.00040.x.

Borrini-Feyerabend, G., N. Dudley, T. Jaeger, B. Lassen, N. Pathak Broome, A. Phillips, and T. Sandwith. 2013. *Governance of Protected Areas: From Understanding to Action*. Gland, Switzerland: IUCN.

Borrini-Feyerabend, Grazia, and Rosemary Hill. 2015. "Governance for the Conservation of Nature." In *Protected Area Governance and Management*, edited by G.L. Worboys, M. Lockwood, A. Kothari, S. Feary, and I. Pulsford, 169–206. Canberra, Australia: ANU Press.

Buckley, Michael. n.d. "Plateau Maps." Meltdown in Tibet.

Cao, Mengtian, Li Peng, and Shaoquan Liu. 2015. "Analysis of the Network of Protected Areas in China Based on a Geographic Perspective: Current Status, Issues and Integration." *Sustainability* 7 (11): 15617–31. https://doi.org/10.3390/su71115617.

CAS. 2018. "China Establishes First Research Institute for National Parks." *CAS*, 2018.

CCICED. 2014. "Institutional Innovation of Eco-Environmental Redlining." Beijing, China. https://www.iisd.org/sites/default/files/publications/CCICED/conservation/2015/institutional-innovation-of-eco-environmetal-redlining.pdf.

———. 2017. "Progress in Environment and Development Policies in China and Impact of CCICED's Policy Recommendations (2013-2017)." Beijing, China.

CGTN. 2019. "National Park Forum Opens in Northwestern Chinese City." *CGTN*, August 19, 2019. https://news.cgtn.com/news/2019-08-19/National-Park-Forum-opens-in-northwestern-China-JhNYCaSvS0/index.html.

China Daily. 2020. "First National Park Will Be Officially Established This Year," January 9, 2020.

Clarke, Jackie. 1997. "A Framework of Approaches to Sustainable Tourism." *Journal of Sustainable Tourism* 5 (3): 224–33. https://doi.org/10.1080/09669589708667287.

Cobbinah, Patrick Brandful. 2015. "Contextualising the Meaning of Ecotourism." *Tourism Management Perspectives* 16 (October): 179–89. https://doi.org/10.1016/j.tmp.2015.07.015.

Community Conservation. 2019. "What Is Community Conservation?" 2019.

Corrigan, C., and T. Hay-Edie. 2013. *A Toolkit to Support Conservation by Indigenous Peoples and Local Communities: Building Capacity and Sharing Knowledge for Indigenous Peoples' and Community Conserved Territories and Areas (ICCAs)*. Cambridge, UK: UNEP-WCMC.

Dangi, Tek, and Tazim Jamal. 2016. "An Integrated Approach to 'Sustainable Community-Based Tourism.'" *Sustainability* 8 (5): 475. https://doi.org/10.3390/su8050475.

"Defining Cultural Tourism." 2016. In *4th International Conference on Advances in Agricultural, Biological & Ecological Sciences (AABES-16) Dec. 1-2, 2016 London*. International Institute of Chemical, Biological & Environmental Engineering. https://doi.org/10.15242/IICBE.DIR1216411.

Dowie, Mark. 2009. *Conservation Refugees: The Hundred-Year Conflict between Global Conservation and Native Peoples*. MIT Press.

Dudley, N. 2008. *Guidelines for Applying Protected Area Management Categories*. Gland, Switzerland: IUCN.

Dudley, Nigel, Holly Jonas, Fred Nelson, Jeffrey Parrish, Aili Pyhälä, Sue Stolton, and James E.M. Watson. 2018. "The Essential Role of Other Effective Area-Based Conservation Measures in Achieving Big Bold Conservation Targets." *Global Ecology and Conservation* 15 (July): e00424.

https://doi.org/10.1016/j.gecco.2018.e00424.

Eagles, PFJ, SF McCool, and CD Haynes. 2002. *Sustainable Tourism in Protected Areas: Guidelines for Planning and Management*. http://cmsdata.iucn.org/downloads/pag_008.pdf.

Economy, Elizabeth. 2004. "The New Politics of the Environment." In *The River Runs Black: The Environmental Challeng to China's Future*. Cornell University Press.

FAO. 2005. "Mountain Tourism: Making It Work for the Poor." Rome, Italy.

Farvar, Taghi, Grazia Borrini-Feyerabden, Jessica Campese, Tilman Jaeger, Holly Jonas, and Stan Stevens. 2018. "Whose 'Inclusive' Conservation? Policy Brief of the ICCA Consortium." Tehran.

Fewsmith, Joseph. 2004. "Promoting the Scientific Development Concept." *China Leadership Monitor* 11.

Foggin, J. Marc. 2000. "Biodiversity Protection and the Search for Sustainability in Tibetan Plateau Grasslands (Qinghai, China)." *ProQuest Dissertations and Theses*. Arizona State University.

———. 2005. "Highland Encounters: Building New Partnerships for Conservation and Sustainable Development in the Yangtze River Headwaters, Heart of the Tibetan Plateau." In *Innovative Communities: People-Centred Approaches to Environmental Management in the Asia-Pacific Region*, edited by Jerry Velasquez, Makiko Yashiro, Susan Yoshimura, and Izumi Ono. UNU Press.

———. 2012. "Pastoralists and Wildlife Conservation in Western China: Collaborative Management within Protected Areas on the Tibetan Plateau." *Pastoralism* 2 (1): 17. https://doi.org/10.1186/2041-7136-2-17.

———. 2014. "Managing Shared Natural Heritages: Towards More Participatory Models of Protected Area Management in Western China." *Journal of International Wildlife Law and Policy*. https://doi.org/10.1080/13880292.2014.953391.

———. 2018a. "Environmental Conservation in the Tibetan Plateau Region: Lessons for China's Belt and Road Initiative in the Mountains of Central Asia." *Land* 7 (2). https://doi.org/10.3390/land7020052.

———. 2018b. "Snow Leopards at Large: One Herding Community's Hope for the Future in the Grasslands of Tibet." In *Mountain Futures: Innovation and Inspiration from the World's Highlands*, edited by Jianchu Xu, 135–42. Nairobi, Kenya: World Agroforestry Centrer.

———. 2020. "Ecotourism: Purposefully Bringing Benefit for Both People and Nature." Bishkek, Kyrgyzstan.

Foggin, J. Marc, and J. Phillips. 2013. "Horizontal Policy Analysis: A Tool to Promote Sustainable Livelihoods Development; with Implications for Ecological Resettlement and Other Major Development Programs in the Tibetan Plateau Region." In *Pastoralism in Contemporary China: Policy and Practice*, edited by Å. Kolås and Zhaluo, 3–30. Beijing, China: Social Science Academic Press.

Foggin, J. Marc, and Marion E. Torrance-Foggin. 2011. "How Can Social and Environmental Services Be Provided for Mobile Tibetan Herders? Collaborative Examples from Qinghai Province, China." *Pastoralism*. https://doi.org/10.1186/2041-7136-1-21.

Foggin, Peter M., Marion E. Torrance, and J. Marc Foggin. 2009. "Accessibility of Health Care for Pastoralists in the Tibetan Plateau Region: A Case Study from Southern Qinghai Province, China." In *Ethnic Minorities and Regional Development in Asia: Reality and Challenges*, edited by Huhua Cao, 83–92. Amsterdam: Amsterdam University Press.

Ford, Adam T., Kathy Rettie, and Anthony P. Clevenger. 2009. "Fostering Ecosystem Function through an International Public–Private Partnership: A Case Study of Wildlife Mitigation Measures along the Trans-Canada Highway in Banff National Park, Alberta, Canada." *International Journal of Biodiversity Science & Management* 5 (4): 181–89. https://doi.org/10.1080/17451590903430153.

Fox, Joseph L., Ciren Yangzong, Kelsang Dhondup, Tsechoe Dorji, and Camille Richard. 2008. "Biodiversity Conservation and Pastoralism in the Tibetan Chang Tang; Coexistence or Conflict?" *Journal of the International Association of Tibetan Studies* 4: 3–7. https://doi.org/10.1057/9780230226203.1919.

Garnett, Stephen T., Neil D. Burgess, John E. Fa, Álvaro Fernández-Llamazares, Zsolt Molnár, Cathy J. Robinson, James E. M. Watson, et al. 2018. "A Spatial Overview of the Global Importance of Indigenous Lands for Conservation." *Nature Sustainability* 1 (7): 369–74. https://doi.org/10.1038/s41893-018-0100-6.

Gross, John E, Stephen Woodley, Leigh A Welling, and James E M Watson. 2016. "Adapting to Climate Change: Guidance for Protected Area Managers and Planners. Best Practice Protected Area Guidelines Series No. 24." Gland.

GSTC. n.d. "GSTC-Recognized Standards for Tour Operators." Accessed February 6, 2020. https://www.gstcouncil.org/gstc-criteria/gstc-recognized-standards-for-tour-operators/.

Han, Shu. 2019. "Tourism Industry in China - Statistics & Facts." Statista. 2019.

He, Siyuan, Yang Su, Lei Wang, Louise Gallagher, and Hongguang Cheng. 2018. "Taking an Ecosystem Services Approach for a New National Park System in China." *Resources, Conservation and Recycling* 137 (October): 136–44. https://doi.org/10.1016/j.resconrec.2018.04.030.

Huan, Xiang. 2018. "China's First National Park to Open in 2020." *People's Daily*, March 28, 2018. https://www.alwihdainfo.com/China-s-first-national-park-to-open-in-2020_a62517.html.

Huaxia. 2019. "Wildlife Booms on Plateau Thanks to Continued Protection Efforts." *Xinhua*, August 31, 2019.

ICCA. 2020. "ICCA Registry." 2020. http://www.iccaregistry.org/en/explore.

"Independent Evaluation of Sanjiangyuan Pilot National Park." 2020. Paulson Institute. 2020. https://www.paulsoninstitute.org/conservation/national-parks/independent-evaluation-of-sanjiangyuan-pilot-national-park/.

IUCN/WCPA. 2019. "Guidelines for Recognising and Reporting Other Effective Areabased Conservation Measures." Gland, Switzerland.

Jiang, Bo, Yang Bai, Christina P. Wong, Xibao Xu, and Juha M. Alatalo. 2019. "China's Ecological Civilization Program–Implementing Ecological Redline Policy." *Land Use Policy* 81 (February): 111–14. https://doi.org/10.1016/j.landusepol.2018.10.031.

Jon P. Beckmann, Anthony P. Clevenger, Marcel Huijser, and Jodi A. Hilty. 2012. *Safe Passages: Highways, Wildlife, and Habitat Connectivity*. Island Press.

Jonas, Harry, Emma Lee, Holly Jonas, Clara Matallana-Tobon, Kim Wright, Fred Nelson, and Eli Ens. 2017. "Will 'other Effective Area-Based Conservation Measures' Increase Recognition and Support for ICCAs?" *Parks* 23 (2): 63–78. https://doi.org/10.2305/IUCN.CH.2017.PARKS-23-2HDJ.en.

Kothari, A., and A. Neumann. 2014. "Aichi Targets: The Contribution of Indigenous Peoples' and Local Community Conserved Territories and Areas to the Strategic Plan for Biodiversity 2011-20." 1. Vol. 20. Policy Brief of the ICCA Consortium.

Kothari, Ashish, Colleen Corrigan, Harry Jonas, Aurélie Neumann, and Holly Shrumm. 2012. *Recognising and Supporting Territories and Areas Conserved By Indigenous Peoples And Local Communities: Global Overview and National Case Studies*. Technical. Montreal, Canada: Secretariat of the CBD, ICCA Consortium, Kalpavriksh, and Natural Justice.

Leung, Yu-Fai, Anna Spenceley, Glen Hvenegaard, and Ralf Buckley. 2018. *Tourism and Visitor Management in Protected Areas : Guidelines for Sustainability*. Edited by Yu-Fai Leung, Anna Spenceley, Glen Hvenegaard, and Ralf Buckley. Gland, Switzerland: IUCN, International Union for Conservation of Nature. https://doi.org/10.2305/IUCN.CH.2018.PAG.27.en.

Linetti, Lena. 2019. "The Effect of Globalization on the Tourism Industry." *Thrive Global*, August 20, 2019.

Liu, Changhao, and Raymond Côté. 2017. "A Framework for Integrating Ecosystem Services into China's Circular Economy: The Case of Eco-Industrial Parks." *Sustainability* 9 (9): 1510. https://doi.org/10.3390/su9091510.

Liu, J., S. Li, Z. Ouyang, C. Tam, and X. Chen. 2008. "Ecological and Socioeconomic Effects of China's Policies for Ecosystem Services." *Proceedings of the National Academy of Sciences* 105 (28): 9477–82. https://doi.org/10.1073/pnas.0706436105.

Liu, Jianqiang. 2015. *Tibetan Environmentalists in China. The King of Dzi*. London: Lexington Books.

Loizos, Christou. 2012. "Is It Possible to Combine Mass Tourism with Alternative Forms of Tourism: The Case of Spain, Greece, Slovenia and Croatia." *Journal of Business Administration Online* Spring 201: 1–8.

Lu, Yonglong, Yueqing Zhang, Xianghui Cao, Chenchen Wang, Yichao Wang, Meng Zhang, Robert C. Ferrier, et al. 2019. "Forty Years of Reform and Opening up: China's Progress toward a Sustainable Path." *Science Advances* 5 (8): eaau9413. https://doi.org/10.1126/sciadv.aau9413.

Makino, Yuka, Sara Manuelli, and Lindsey Hook. 2019. "Accelerating the Movement for Mountain Peoples and Policies." *Science* 365 (6458): 1084–86. https://doi.org/10.1126/science.aay8855.

maphill. n.d. "Satellite 3D Map of Qinghai Province."

Maynard, Andrew. 2016. "Can Citizen Science Empower Disenfranchised Communities?" The Conversation. 2016. http://theconversation.com/can-citizen-science-empower-disenfranchised-communities-53625.

Morton, Katherine. 2007. "Civil Society and Marginalisation: Grassroots NGOs in Qinghai Province." In *Marginalisation in China: Perspectives on Transition and Globalisation*, edited by H. Zhang, B. Wu, and R. Sanders, 239–56. Aldershot: Ashgate Publishing.

Murphy, P.E. 1985. *Tourism: A Community Approach;* New York: Methuen.

Naudts, Kris. 2019. "How Curiosity and Globalization Are Driving a New Approach to Travel." *World Economic Forum*, June 24, 2019.

PADI Worldwide. 2017a. "Mobilizing Divers to Be a Force for Good: PADI's Four Pillars of Change." 2017.

———. 2017b. "PADI Mobilizes Divers to Be a Force for Good." DiveNewsWire. 2017.

Pan, J. 2012. "From Industrial Toward Ecological in China." *Science* 336 (6087): 1397–1397. https://doi.org/10.1126/science.1224009.

Parks Canada. 2000. *Sustainable Development Strategy 2001-2004: Sustaining Ecological and Commemorative Integrity*.

Paxton, Midori, Tim Scott, and Yoko Watanabe. 2016. "Co-Management on the Roof of the World." In *Silent Roar: UNDP and GEF in the Snow Leopard Landscape*. UNDP and GEF.

Peng, Fuwei. 2018. "The Practice and Exploration on the Establishment of National Park System in China." *International Journal of Geoheritage and Parks* 6 (1): 1–16. https://doi.org/10.17149/ijg.j.issn.2210.3382.2018.01.001.

Responsible Tourism. 2002. "Cape Town Declaration on Responsible Tourism." 2002.

Richards, G. 2003. "What Is Cultural Tourism?" In *Erfgoed Voor Toerisme*, edited by A. van Maaren. Weesp: Nationaal Contact Monumenten.

Richards, Greg. 2018. "Cultural Tourism: A Review of Recent Research and Trends." *Journal of Hospitality and Tourism Management* 36 (September): 12–21. https://doi.org/10.1016/j.jhtm.2018.03.005.

Riesch, Hauke, Clive Potter, and Linda Davies. 2013. "Combining Citizen Science and Public Engagement: The Open AirLaboratories Programme." *Journal of Science Communication* 12 (3): 1–19.

Roe, Dilys, Nathalie Seddon, and Joanna Elliott. 2018. "Biodiversity Loss Is a Development Issue. A Rapid Review of the Evidence." London.

Saayman, Melville, and Andrea Giampiccoli. 2016. "Community-Based and pro-Poor Tourism: Initial Assessment of Their Relation to Community Development." *European Journal of Tourism Research* 12: 145–90.

SCB. 2019. "The 2019 Kuala Lumpur Declaration: The Species Extinction Crisis Is a Crisis of Humanity." Kuala Lumpur, Malaywia. https://conbio.org/publications/scb-news-blog/2019-kuala-lumpur-declaration.

Shang, Kaiyuan. 2019. "China Sees Enhanced Efforts in Protection of National Parks." *People's Daily*, March 18, 2019.

Shokirov, Qobiljon, A Abdykadyrova, C Dear, and S Nowrojee. 2014. "Mountain Tourism and Sustainability in Kyrgyzstan and Tajikistan: A Research Review." *Ucentralasia.Org*, no. 3. http://www.ucentralasia.org/downloads/web-UCA-MSRI-BP3-Tourism-Eng.pdf.

Sobrevila, Claudia. 2008. "The Role of Indigenous Peoples in Biodiversity Conservation : The Natural but Often Forgotten Partners." Washington, DC. http://documents.worldbank.org/curated/en/995271468177530126/The-role-of-indigenous-peoples-in-biodiversity-conservation-the-natural-but-often-forgotten-partners.

Song, Chaosu. 2000. *An Outline of China's Nature Reserves*. In Chinese. Hangzhou, Zhejiang: Youth Press.

Spenceley, Anna. n.d. "IUCN WCPA Tourism and Protected Areas Specialist Group."

Stanway, David. 2018. "China Approves No-Development Zones in 15 Regions." *Reuters*, February 12, 2018.

State Council. 2014. "国务院关于印发全国主体功能区规划的通知(Notice of the State Council on National Function Zoning Plan) (2010, #46)." Beijing, China. http://www.gov.cn/zwgk/2011-06/08/content_1879180.htm.

Stevens, Stan, Tilman Jaeger, and Neema Pathak Broome. 2016. "ICCAs and Overlapping Protected Areas: Fostering Conservation Synergies and Social Reconciliation." Tehran, Iran.

Sweeting, Amy. 2007. *Tourism and Mountains: A Practical Guide to Managing the Environmental and Social Impacts of Mountain Tours*. UNEP.

TIES. 2015. "What Is Ecotourism?" 2015.

UNDP China. n.d. "Strengthening the Effectiveness of the Protected Area System in Qinghai Province, China to Conserve Globally Important Biodiversity."

———. 2013. "Project Document: Strengthening the Effectiveness of the Protected Area System in Qinghai Province, China to Conserve Globally Important Biodiversity."

UNEP, and UNWTO. 2005. *Making Tourism More Sustainable: A Guide for Policy Makers*. Paris, France: UNEP and UNWTO.

UNWTO. n.d. "Glossary of Tourism Terms."

———. 2018a. *Tourism and Culture Synergies*. World Tourism Organization (UNWTO). https://doi.org/10.18111/9789284418978.

———. 2018b. *Sustainable Mountain Tourism – Opportunities for Local Communities*. Madrid, Spain: World Tourism Organization (UNWTO). https://doi.org/10.18111/9789284420261.

Vajirakachorn, Thanathorn. 2011. "Determinants of Success for Community-Based Tourism: The Case

of Floating Markets in Thailand." Texas A&M University. http://hdl.handle.net/1969.1/ETD-TAMU-2011-08-9922.

Wang, Guangyu, John L. Innes, Sara W. Wu, Judi Krzyzanowski, Yongyuan Yin, Shuanyou Dai, Xiaoping Zhang, and Sihui Liu. 2012. "National Park Development in China: Conservation or Commercialization?" *AMBIO* 41 (3): 247–61. https://doi.org/10.1007/s13280-011-0194-9.

Wang, Ling-en, Yuxi Zeng, and Linsheng Zhong. 2017. "Impact of Climate Change on Tourism on the Qinghai-Tibetan Plateau: Research Based on a Literature Review." *Sustainability* 9 (9): 1539. https://doi.org/10.3390/su9091539.

Weckworth, Byron, and Juan Li. 2013. "Multi-Stakeholder Approaches to Snow Leopard Conservation on the Tibetan Plateau." *CATnews* 59 (Autumn 2013): 17–19.

Wei, Dongying. 2017. "Integrated Plan for Establishing a National Park System in China." *International Journal of Geoheritage* 5 (2): 56–63. https://doi.org/10.17149/ijg.j.issn.2210.3382.2017.02.005.

Wilson, Edward O. 2016. *Half Earth: Our Planet's Fight for Life*. New York: W.W. Norton.

World Bank Group. 2018. "What Are Public Private Partnerships?" Public-Private-Partnership Legal Resource Center. 2018.

World Ecotourism Summit. 2002. "Québec Declaration on Ecotourism." Québec, Canada.

World Heritage Sites. 2020. "China: Properties Inscribed on the World Heritage List." 2020.

Xin, H. 2008. "CHINA'S ENVIRONMENTAL CHALLENGES: A Green Fervor Sweeps the Qinghai-Tibetan Plateau." *Science* 321 (5889): 633–35. https://doi.org/10.1126/science.321.5889.633.

Xinhua. 2017. "China to Invest 1 b Yuan in Sanjiangyuan National Park Construction." *Xinhua*, February 6, 2017.

Xu, Weihua, Yi Xiao, Jingjing Zhang, Wu Yang, Lu Zhang, Vanessa Hull, Zhi Wang, et al. 2017. "Strengthening Protected Areas for Biodiversity and Ecosystem Services in China." *Proceedings of the National Academy of Sciences* 114 (7): 1601–6. https://doi.org/10.1073/pnas.1620503114.

Xu, Xibao, Yan Tan, Guishan Yang, and Jon Barnett. 2018. "China's Ambitious Ecological Red Lines." *Land Use Policy* 79 (December): 447–51. https://doi.org/10.1016/j.landusepol.2018.08.037.

Yan, Wang. 2019. "China's First National Park, an Experiment in Living with Snow Leopards." Mongabay. 2019. https://news.mongabay.com/2017/05/chinas-first-national-park-an-experiment-in-living-with-snow-leopards/.

Zhang, Baiping, Xiaodong Chen, Baolin Li, and Yonghui Yao. 2002. "Biodiversity and Conservation in the Tibetan Plateau." *Journal of Geographical Sciences* 12 (2): 135–43.

Zhang, Yili, Zhongjun Hu, Wei Qi, Xue Wu, Wanqi Bai, Lanhui Li, Mingjun Ding, Linshan Liu, Zhaofeng Wang, and Du Zheng. 2016. "Assessment of Effectiveness of Nature Reserves on the Tibetan Plateau Based on Net Primary Production and the Large Sample Comparison Method." *Journal of Geographical Sciences* 26 (1): 27–44. https://doi.org/10.1007/s11442-016-1252-9.

Zhong, Linsheng, Ralf C. Buckley, Cassandra Wardle, and Lingen Wang. 2015. "Environmental and Visitor Management in a Thousand Protected Areas in China." *Biological Conservation* 181 (January): 219–25. https://doi.org/10.1016/j.biocon.2014.11.007.

APPENDICES

APPENDIX 1. Main types of tourism (more detailed descriptions)

The UN World Tourism Organization defines tourism as "a social, cultural and economic phenomenon" that involves the movement of people to places outside of their usual environment, for personal or professional purposes, within their home country or abroad (domestic and international tourism), encompassing the full range of their activities, some of which imply tourism expenditures (UNWTO, n.d.).

Different forms of tourism are introduced here, organized according to their basic characteristics, geographic location, broad purpose, or assets available. This is not an exhaustive list of all types of tourism, but rather is focused on those forms or categories of tourism that aspire to be, or are assumed to be, sustainable in some way or other. The Global Sustainable Tourism Council (GSTC) recommends baseline standards for sustainable travel and tourism, with standards targeting hotels and other accommodation, tour operators, destinations, certification bodies, and travellers (see, e.g., GSTC-Recognized Standards for Tour Operators; GSTC, n.d.).

BASIC CHARACTERISTICS

Sustainable Tourism

Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities

Sustainability principles[xvii] and practices "are applicable to all forms of tourism in all types of destinations… [Furthermore, tourism development] requires the informed participation of all relevant stakeholders, as well as strong political leadership… Achieving sustainable tourism is a continual process of improvement and one which applies equally to tourism in cities, resorts, rural and coastal areas, mountains, and protected areas"
(UNEP and UNWTO 2005). All forms of tourism regardless of focus or scale may be noted as more or less sustainable (Clarke 1997).

Responsible Tourism

Tourism that makes better places for people to live and better places for people to visit

Closely aligned with sustainable tourism, broad principles of responsible tourism were more formally outlined in the *Cape Town Declaration on Responsible Tourism*, which was adopted at a side event preceding the World Summit on Sustainable Development in Johannesburg, South Africa, in 2002 (Responsible Tourism 2002) – including minimizing negative economic, environmental and social impacts; generating greater economic benefits for local peoples; involving local people in decisions that affect their lives; and much more.

GEOGRAPHIC (AREA-BASED) FOCUS

Mountain Tourism

Sustainable tourism in mountain regions with their distinctive characteristics and attributes including landscape, topography, climate, biodiversity, and local communities, also encompassing a wide range of outdoor leisure and sports activities, and holding significant potential to stimulate local economic growth

Tourism in mountain areas can take many forms. It could potentially be defined on geographic merit alone, however it is generally understood as sustainable tourism in mountain regions that seeks to benefit the local mountain communities (UNWTO 2018b). It is widely appreciated that sustainable mountain tourism can help alleviate poverty, improve employment and livelihood opportunities, conserve the environment, encourage economic growth, boosts development of mountain products, and satisfy tourist needs (FAO 2005).

Tourism in Protected Areas

Tourism in or near protected areas, including ventures organized by external agencies largely as nature tourism as well as more community-friendly tourism focused on either natural or sociocultural assets.

Tourism that occurs in protected areas generally comes under the jurisdiction of the protected areas and their management plans, including tourism and visitor management plans, with the revenues derived from entrance fees and other associated fees and requirements (such as hiring guides) going to the protected area authorities

and/or shared with local communities. Such income from tourism in protected areas broadly aims to ensure a sustainable financing mechanism for the protected area as well as compensating local residents for their lost opportunities (due to various restrictions imposed by the protected area). IUCN's Tourism and Protected Areas Specialist Group (TAPAS Group) advocates "for a future where tourism enhances the conservation integrity of protected area systems, improves human well-being and provides benefits for the local population, and [for] accessible, inspiring, safe and educational opportunities for visitors through environmentally, socio-culturally and economically sustainable products and experiences." (Spenceley, n.d.) – which clearly may be recognized as ecotourism in protected areas. Guidelines related to tourism in protected areas are available (Eagles, McCool, and Haynes 2002; Leung et al. 2018; IUCN/WCPA 2019).

PURPOSE DRIVEN TOURISM

Community Based Tourism

Tourism centred on local assets and community level benefit, manifesting progressive characteristics such as community empowerment, care for the environment, and special attention given to social justice and equity

Community Based Tourism (CBT) is an alternative form of tourism[xviii] that developed under a broad framework of responsible tourism, seeking to combat the negative impacts of mass tourism. CBT specifically aims to aid rural communities through grassroots and participatory development, empowerment, and capacity building (Murphy 1985; Dangi and Jamal 2016). Notably, ten criteria for success were identified in a study of rural communities in Thailand, including community participation and benefit-sharing (Vajirakachorn 2011).[xix]

Pro-poor tourism is sometimes understood as a subset of community based tourism (Dangi and Jamal 2016), emphasizing poverty alleviation and seeking to increase the net benefits of tourism for the poor. However, others argue that the social justice and redistributive aims of CBT are not shared by pro-poor tourism, which largely is sustained by the neoliberal system and does not change *status quo* (Saayman and Giampiccoli 2016).

Ecotourism

Responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education for both staff and guests

Broadly overlapping with community-based tourism, ecotourism further brings additional and stronger focus on conservation outcomes, while not neglecting the desired social benefits and learning outcomes of tourism. In short, ecotourism moves well beyond "do not harm" (i.e., responsible tourism) and seeks to bring tangible contribution to conservation efforts, either through support given to local community projects, cf. community conservation,[xx] or in form of time volunteered for relevant research or other projects, cf. citizen science.

The *Quebec Declaration on Ecotourism* (World Ecotourism Summit 2002) specifically recognizes ecotourism as embracing the following key principles, which distinguish it from the broader concept of sustainable tourism:

- Ecotourism contributes actively to the conservation of natural and cultural heritage;
- Ecotourism includes local and indigenous communities in all stages and contributes to their well-being;
- Ecotourism interprets the natural and cultural heritage of the destination to visitors;
- Ecotourism lends itself well to independent travellers and small groups.

Often times, ecotourism is misunderstood by tour agencies and communities alike, omitting an appropriate recognition and appreciation for the sociocultural goals of ecotourism, assuming (wrongly) that ecotourism aims only to protect nature and failing to remember the human element. Sometimes people also (wrongly) assume that ecotourism is contingent only on an appreciation of nature – but that is simply nature tourism (see below), focusing more on the asset rather than on purposes. The changing and expanding meanings of ecotourism over the past couple decades are reviewed by Cobbinah (2015), and the most widely accepted guidelines for ecotourism development are offered by The International Ecotourism Society (TIES 2015).

ASSETS-BASED TOURISM

Nature Tourism

Leisure travel undertaken largely or solely for the purpose of enjoying natural attractions and engaging in a variety of outdoor activities

Important note: Nature tourism (or nature-based tourism) is often conflated with ecotourism, on the (wrong) assumption that ecotourism has a sole focus on 'nature,' that is on the 'eco' element in its name, when in fact ecotourism has three component parts: (i) it contributes to conservation outcomes, (ii) benefits communities, and (iii) provides educational opportunities and/or raises awareness about the environment and sustainability. On the other hand, while nature tourism focuses on the natural environment and our appreciation of nature, there is no impetus or explicit requirement that any conservation outcome by sought through travel/tourism, let alone community benefit or any educational and awareness purposes.

Nature tourism is travel or activities undertaken largely or solely for the purpose enjoying nature or engaging in outdoor activities. Thus, all forms of tourism focused on observing or otherwise engaging with the natural environment, including wildlife, fall under the category of nature tourism (e.g., bird watching, safaris, fishing, beachcombing, hunting tourism, star gazing, etc.), as also do travels that are related to sport activities or any mode of transport or movement across the landscape (e.g. mountaineering, trekking, ultramarathons, rafting, skiing, horse riding, 4WD vehicle tours, adventure tourism, etc.). This form of tourism is based on the 'assets' of nature, including natural landscapes and the different ways available to appreciate them, but it does not inherently incorporate any notion of sustainability, of benefits to communities, or of learning opportunities.

Culture Tourism

Travel with a primary purpose of experiencing and learning about other cultures, or viewing and/or engaging with particular cultural events, historic sites, current or traditional livelihoods, ways of life, etc.

Culture is a broad term that includes both tangible and intangible aspects. Culture tourism may occur in one's own country or region, or it may be further afield, the only proviso being that the main focus is on the human dimension of the experience. Culture "consists of both products (e.g. buildings, customs and arts) and process (e.g. way of life)… [Thus] cultural tourism is not merely associated with visiting monuments and sites… it also includes consuming the way of life in different destinations. In other words, cultural tourism is not just about consuming cultural products of the past; it also deals with contemporary way of life and culture of people" ("Defining Cultural Tourism" 2016). Cultural tourism is arguably the original form of tourism (Richards, 2003) and it currently accounts for over 39% of global tourism arrivals (Richards, 2018).

The World Tourism Organization provides a lengthier definition of cultural tourism:

A type of tourism activity in which the visitor's essential motivation is to learn, discover, experience and consume the tangible and intangible cultural attractions/products in a tourism destination. These attractions /products relate to a set of distinctive material, intellectual, spiritual and emotional features of a society that encompasses arts and architecture, historical and cultural heritage, culinary heritage, literature, music, creative industries and the living cultures with their lifestyles, value systems, beliefs and traditions.

Adopted at the 22nd Session of UNWTO General Assembly in Chengdu, China (UNWTO 2018a)

While cultural tourism can help to help break down barriers between people through enhanced understanding and appreciation, the process of influence is a two-way street with changes occurring amongst all the partners. Globalization has greatly enabled the development of cultural tourism, with easier and more rapid sharing and exchange of information as well as ease and speed of travel. With this, however, come some oft overlooked challenges, including not only the protection and maintenance but also the ownership of both tangible and intangible cultural heritage (Richards, 2018) and increasing levels of cultural erosion driven be globalization-induced economic commodification of traditions and products for tourist markets (Linetti 2019). On the other hand, living in a globalized or "connected world" also is contributing to a (re)shaping of "outlooks on life … by influences from different cultures" and, furthermore, "the economic landscape of the last decade has resulted in a shift in values away from materialism, with younger generations more interested in collecting experiences than possessions" together with "exposure to other cultures [now noted as being] closely linked to a high level of concern about the impact of tourism on the environment" (Naudts 2019).

APPENDIX 2. Protected and conserved areas and key biodiversity areas on the Tibetan plateau

A. Protected and conserved areas on the Tibetan plateau (this is a non-comprehensive list, as it excludes some scenic areas, forest parks, geoparks, etc., some of which are partially overlapping)

Nature reserves on the Tibetan plateau, until 2000 (B. Zhang et al. 2002):

Series No.	Nature reserve	Area (ha)	Main protected species	Since
1. Tibet-1	Bajie	8	Giant cypress and habitats	1985
2. Tibet-2	Dongjug	22,600	Red-spot antelope, Macaca assamensis	1993
3. Tibet-3	Gangxiang	4,600	Primitive spruce forest and wildlife	1985
4. Tibet-4	Jiangcun	34,060	Lang-leaved pine and spruce	1984
5. Tibet-5	Markam	185,300	Phinopithecus roxellande	1993
6. Tibet-6	Medog	62,620	Altitudinal vegetation belts and rare animals	1986
7. Tibet-7	Mt. Qomolangma	3,381,000	Forest ecology	1994
8. Tibet-8	Paingbo	9,680	Black-necked crane and winter habitats	1993
9. Tibet-9	Qiangtang	29,800,000	Tibetan desert/steppe ecosystem	1993
10. Tibet-10	Riwoqe	63,700	Red deer and habitats	1993
11. Tibet-11	Xainza	4,000,000	Black-necked crane and habitats	1993
12. Tibet-12	Yarlungzangbu Great Gorge	930,180	Biodiversity (including Tibet-2, 3, 6)	1999
13. Tibet-13	Zayu	101,412	Sub-tropical evergreen broad-leaved forests	1985
14. Tibet-14	Zham	6,852	Hemitragus jamlahicus	1985
15. Qinghai-1	Hoh Xil	4,500,000	Wild yak, Tibetan antelope, Tibetan wild ass	1997
16. Qinghai-2	Longbao	10,000	Black-necked crane	1986
17. Qinghai-3	Mengda	17,290	Forest and rare animals	1980
18. Qinghai-4	Qinghai Lake	495,200	Rare water bird and habitats	1997
19. Xinjiang-1	Altun Mountains	4,500,000	Alpine desert ecosystem	1983
20. Xinjiang-2	Taxkorgan	1,500,000	Snow leopard	1984
21. Gansu-1	Annan Ba	396,000	Wild camel, wild ass	1982
22. Gansu-2	Baishui River	213,750	Giant panda, golden monkey	1978
23. Gansu-3	Dongda Mountains	5,045	Montane mixed forest and wildlife	1980
24. Gansu-4	Great Sugan Lake	9,640	Migratory birds, lake, wetland	1982
25. Gansu-5	Minor Sugan Lake	2,400	Migratory birds, lake, wetland	1982
26. Gansu-6	Qilian Mountains	2,653,02	Riverhead water conserving forest and rare animals	1988
27. Gansu-7	Yanchiwan	424,80	White-lipped dear, wild yak, Tibetan wild ass	1982
28. Sichuan-1	Baihe River	16,20	Golden monkey	1963
29. Sichuan-2	Fengyong village	39,000	Giant panda, forest ecosystem	1975
30. Sichuan-3	Four-girl mountains	48,500	Wildlife and alpine ecosystem	1996
31. Sichuan-4	Gongga Mountains	400,000	Forest ecosystem, glaciers	1997
32. Sichuan-5	Jiuzhaigou	64,300	Giant panda, forest ecosystem	1978
33. Sichuan-6	Laba River	23,400	Giant panda, Bodorcus taxicolor	1963
34. Sichuan-7	Mabian-dafengding	34,500	Giant panda, forest ecosystem	1978
35. Sichuan-8	Meigu-dafengding	16,000	Giant panda, forest ecosystem	1978
36. Sichuan-9	Panzhihua cycad	1,400	Panzhihua cycad	1996
37. Sichuan-10	Tangjia River	40,000	Giant panda, forest ecosystem	1978
38. Sichuan-11	Wanglang	32,297	Giant panda, forest ecosystem	1963
39. Sichuan-12	Wolong	200,000	Giant panda, forest ecosystem	1975
40. Sichuan-13	Xiaozhaizhi valley	7,700	Giant panda, forest ecosystem	1979
41. Yunnan-1	Baima mountains	190,144	Alpine forest, golden monkey	1988
42. Yunnan-2	Bitahai	14,181	Alpine coniferous forest, alpine lake, wildlife	1984
43. Yunnan-3	Daxue mountains	15,864	Sub-tropical broad-leaved forest and wildlife	1986
44. Yunnan-4	Kaba mountains	21,908	Alpine forest, golden monkey	1984
45. Yunnan-5	Nagpag Co	2,400	Black-necked crane and habitats	1984

Data source: Song Chaosu, 2000

Note: The largest addition to the above is the Sanjiangyuan National Nature Reserve, established in 2000. At over 152,000 km², its total land area is more than the size of England and Wales combined.

National parks on the Tibetan plateau (CGTN 2019; Foggin 2018a):

- Qilian Mountain National Park
  High altitude mountain range (4000 - 6000 m asl) with meadows, forests, glaciers, and rugged landscape. Home to snow leopard, white-lipped deer, and other rare wildlife species. Located in Qinghai and Gansu provinces. Total area, 50,000 km².

- Sanjiangyuan National Park
  The first and largest of the 10 pilot national parks, encompassing the headwaters of three major Asian rivers: the Yellow, Yangtze, and Mekong rivers. Located in Qinghai province. Total area, 123,100 km².

- Giant Panda National Park
  More than 80 protected areas will be incorporated into this park, home to most of the world's giant pandas (daxiongmao), along with much other wildlife. Located in Sichuan, Gansu and Shaanxi provinces. Total area, 27,000 km².

- Shangri-La Pudacuo National Park
  Renowned for its lakes, wetlands, forests, meadows, and nearly 100 endangered wildlife species. Rich in biodiversity, it contains more than 20 percent of China's plant species and around 1/3 of its mammals and birds. Tibetan culture and customs also are component parts of the NP. Located in Yunnan province. Total area, 1,313 km².

World Heritage Sites (World Heritage Sites 2020):

- Jiuzhaigou Valley Scenic and Historic Interest Area (ID #637), in Sichuan province, inscribed in 1992, area 720 km² (Jiuzhaigou Valley also is a biosphere reserve, designated in 1997)

- Huanglong Scenic and Historic Interest Area (ID #638), in Sichuan province, inscribed in 1992, area 600 km² (Huanglong Valley also is a biosphere reserve, designated in 2000)

- Three Parallel Rivers of Yunnan Protected Area (ID #1083), in Yunnan province, inscribed in 2003, area 17,000 km² (an area consisting of 15 protected areas, grouped in 8 clusters)

- Sichuan Giant Panda Sanctuaries – Wolong, Mt Siguniang and Jiajin Mountains (ID #1213), in Sichuan province, inscribed 2006, area 9,245 km² (Wolong also is a biosphere reserve, designated in 1979)

- Qinghai Hoh Xil (ID #1540), in Qinghai province, inscribed in 2017, area 22,909 km² (now overlapping with the Kekexili National Nature Reserve and Sanjiangyuan National Park)

China's Ecological Protection Red Line approach (Bai et al. 2018; Jiang et al. 2019; Xu et al. 2018):

"The 'ecological protection red line' scheme was first devised in 2011 amid fears that decades of 'irrational development' had put China's environment under heavy strain. It is designed to ban or restrict industrial development in wetlands, forests, national parks or protected nature zones. [In February 2018,] Li Ganjie, China's environment minister, said … that the country would eventually aim to protect as much as 25 percent of the country's territory using the 'red line' scheme." (Stanway 2018)

Although specific "red line" zones are not yet finalized in the Tibetan plateau region, they are being developed nationally on the basis of earlier "key ecological functional zones" (CCICED 2014; State Council 2014; CCICED 2017), which include the following in area in the afore-mentioned region:

- Sanjiangyuan Steppe Meadow Wetland Ecological Functional Zone, land area 353,394 km², pop. 723,000 people
- Zoige Prairie Wetland Ecological Functional Zone, land area 28,514 km², pop. 182,000 people

- Ecological Functional Zone of Important Water Supply in the Yellow River of Gannan, land area 33,827 km^2, pop. 1,555,000 people
- Glacier and Water Conservation Ecological Functional Zone in Qilian Mountains, land area 185,194 km^2, pop. 2,407,000 people
- Sichuan-Yunnan Forest and Biodiversity Ecological Functional Zone, land area 302,633 km^2, pop. 5,012,000 people
- Forest Ecological Functional Area on the Edge of the Southeast Tibet Plateau, land area 97,750 km^2, pop. 58,000 people
- Desert Ecological Function Area of Qiangtang Plateau in Northwest Tibet, land area 494,381 km^2, pop. 110000 people

ICCAs, also known as Territories of life

In addition to formal protected areas, ICCAs – Territories of Life exist in many shapes and sizes and in many places around the world (Garnett et al. 2018; Sobrevila 2008), necessarily including China (see, e.g., ICCA 2020). That said, documenting community conserved areas is not straightforward in China, even though "indigenous and community conserved areas" (ICCAs) are now widely recognized and well established within protected area frameworks (Dudley 2008)(Borrini-Feyerabend et al. 2013).

If we recognize traditional nomadic pastoralism in the Tibetan plateau area as being a community-based or indigenous approach to resource management that *de facto* led to sustainable outcomes with preservation of biodiversity (at least until several major sociocultural disruptions massively affected the people and their livelihood practices in recent decades), then hypothetically we also could recognize the entire grassland ecosystem as one very large ICCA – Territory of life. Looking toward more specific (smaller) areas and current practices, community conserved areas are even now increasingly being recognized in China too, albeit still relatively few in number. Currently, at least one research project is underway to better ascertain their extent and other characteristics, based out of University of Kent, with support from UNEP World Conservation Monitoring Centre (WCMC) in Cambridge, UK.

B. Key Biodiversity Areas (KBAS) on the Tibetan plateau

New methodologies have recently been developed to help assess and prioritise conservation needs and responses, such as for the establishment of new protected areas or for strengthening legislation beyond protected areas – these are under the framework of Key Biodiversity Areas, KBAs. This new approach should soon be translated into the Tibetan plateau regional context; but this has yet to be put in practice.

A KBA-based comprehensive gap analysis is currently underway by the IUCN World Commission for Protected Areas (WCPA), with a focus on mountain regions of the world. This will in due course also lead to regional reviews and recommendations, including for the Tibetan plateau region. At present, however, the KBA approach has not yet been applied to this region.

ENDNOTES

[i] Protected areas, or PAs, come in many shapes and forms. Most commonly, people understand PAs to be referring to national parks, nature reserves, and a range of other formal, government-instituted systems. However, a large portion of the world is conserved through customary practices that *de facto* have led to conservation of land and natural resources. In 2018, it was for the first time presented how, at a global scale, "Indigenous Peoples [and local communities] manage or have tenure rights over at least ~38 million km^2 in 87 countries or politically distinct areas on all inhabited continents. This represents over a quarter of the world's land surface, and intersects about 40% of all terrestrial protected areas and ecologically intact landscapes" (Garnett et al. 2018). Such community conserved areas often overlap with, but are not the same as, formal protected areas (Stevens, Jaeger, and Pathak Broome 2016).

In the history of protected areas, including the creation of most early national parks in western countries and in other countries largely guided by western 'fortress conservation' models of conservation, much harm has come to local people, especially indigenous peoples (Dowie 2009). Myopic views on conservation approaches have been partially redressed, however, with recognition of ICCAs – Territories of Life and other affiliated terms for community-driven conservation, particularly with reference to two complementary but distinct processes, governance of land and resources (*who decides*) as well as the resulting management systems (*what is done*).

The IUCN World Commission on Protected Areas (WCPA) has recently endorsed a new management category, *Other effective area-based conservation measures*, OECMs (IUCN/WCPA 2019; Dudley et al. 2018) that opens the door for new thinking and renewed appreciation for community based conservation approaches. That said, critical questions of agency and of priority of roles in decision making remain (Farvar et al. 2018; Jonas et al. 2017), and other emerging global conservation plans such as "Half Earth" may yet come to derail the gains made to date in favour of a return to protectionist, exclusionary conservation approaches that favour the wealthy over the majority (Nigel Dudley et al. 2018; Wilson 2016; SCB 2019).

[ii] "Important conservation landscapes" refer to ecologically valuable regions at landscape level (i.e. within the range of human cognition and appreciation, rather than abstract levels such as continents), inclusive of local ecosystems and biocultural diversity, which are deemed by local people, communities and even cultures as deserving some level of protection. People may engage in active protection, or sometimes they may 'only' *de facto* conserve the environment through traditional resource use practices, and other activities, ensuring the continued provision of goods and services from the landscape for both present and future generations. Thus, conservation landscapes include not only formal protected areas such as nature reserves, national parks, etc. but also, very importantly, also *territories and areas conserved by indigenous peoples and local communities*, or more succinctly "Territories of Life" (Garnett et al. 2018; Ashish Kothari et al. 2012; Corrigan and Hay-Edie 2013).

Conservation landscapes governed and/or managed by local communities or indigenous peoples now also are recognised within the framework of the world's protected areas, as outlined in IUCN's World Commission on Protected Areas (WCPA) – with ICCAs now included in the category, Other Effective Area-based Conservation Measures (OECMs) (IUCN/WCPA 2019) (Jonas et al. 2017; Grazia Borrini-Feyerabend and Hill 2015; IUCN/WCPA 2019).

[iii] Plateau Perspectives is a nonprofit organization that was established in 1998 for the purpose of advancing environmental conservation and community development in the Tibetan plateau region. It was registered in Canada in 2002. It expanded its scope of work in 2013 and now also encompasses the mountain regions and societies in greater Central Asia. A documentary film about the organization's first 18 years of collaborative conservation and community development work in the Tibetan Plateau region was aired in October 2017 on Hong Kong Satellite Television (HKSTV), see http://plateauperspectives.org/documentary/. A comprehensive summary of the organization's contributions also has been published in the journal Land (Foggin, 2018a).

[iv] The Upper Yangtze Conservation and Development Organization, or Upper Yangtze Organization (UYO) for short, was established in 1998 in Zhiduo County, Qinghai Province, China. With over 100 founding members, UYO was the first Tibetan grassroots organization to be established in the region and it contributed much to environmental education and conservation and the development of civil society in the province (see Foggin, 2005; M. Foggin & Torrance-Foggin, 2011; Jianqiang Liu, 2015; Morton, 2007).

The early impetus to establish the UYO came from its founding director who wished to continue the legacy of the leader of the famous Wild Yak Brigade, Sonam Dorje, who murdered by poachers in the Kekexili desert region in 1994 (Economy, 2004; Foggin, 2005) – brought to the 'big screen' by Director Lu Chuan in the true story drama, Mountain Patrol (see https://www.imdb.com/title/tt0386651/).

An early project of UYO was creation of participatory video, which enabled local community members to speak about their lives in their own words (produced in 2005, see http://www.marcfoggin.com/participatory-video/). Through such community-centred initiatives, the foundations were laid for the eventual development of 'co-management' approaches in conservation that eventually were adopted by the Sanjiangyuan National Park.

[v] The Yangtze Headwaters Sustainable Development Project (2004-08) was a tripartite project that aimed to strengthen social services and environmental protection on the Tibetan Plateau, co-led by the community as represented by the grassroots UYO, by Government of Zhiduo County, and by Plateau Perspectives (Foggin, 2005; Foggin & Torrance-Foggin, 2011; Foggin, Torrance, & Foggin, 2009).

[vi] A large 7.1-magnitude earthquake devastated Jyegu town and the surrounding region in Yushu Prefecture, in southwest Qinghai Province, in April 2010. For more information about the ensuing emergency relief response, see http://yushuearthquake.org/.

[vii] D-Starine is a Shanghai-based company that has invested in supporting the Yushu region of China, through capacity building and training, business development, and other forms of corporate social responsibility. The social enterprise later rebranded as Horseback Planet Society (HPS) when it began to focus increasingly on community-beneficial ecotourism, building on local natural and cultural assets, including horse riding.

[viii] The Kegawa Herders Cooperative was established in 2010 in Duocai Township, Zhiduo County, supported by Plateau Perspectives through two of its national staff members. The cooperative now has over 80 households (Foggin, 2018b) who engage in a wide range of socioeconomic activities, mostly related to livestock products, environmental education and monitoring, and tourism development. Partnership with the social enterprise kora has further strengthened the community, with increased certainty in regard to annual sales and price, also with training and capacity building. For more information, see https://kora.net/pages/our-purpose and http://plateauperspectives.org/kora/. Early successes in the development of Kegawa Herders' Cooperative encouraged the government to replicate several aspects of its functioning across the county (pers. comm., county government official, December 2019).

[ix] A summary of the study tour and feedback provided by the participants is provided in the document entitled Qinghai/Tibet Study Tour to Western Canada, available for download at http://plateauperspectives.org/study-tours/. Most notably, lessons learned in matters of public participation, community co-management, wildlife research and monitoring, community benefits of tourism in national parks, and the mandate of parks to not only protect the environment but also to preserve cultural diversity, these were all noted by the Sanjiangyuan National Nature Reserve authorities – who only a few years later participated in transforming the reserve into the Sanjiangyuan National Park. Adoption of a community co-management approach in the national park has thus been attributed in part to Plateau Perspectives (pers. comm., SNP administration bureau, August 2018).

[x] Horizontal Policy Analysis (HPA) is the study of policy impacts across multiple development sectors, not only from within the particular sector of the policy whose impact is being studied. For example, education policies may have impacts on people's income and health as well as affecting educational outcomes. Likewise, policies related to tourism (as business development) could also be leveraged to support poverty alleviation programs and environmental conservation goals in a region, if the different development sectors are duly coordinated. An example from the Tibetan Plateau region is provided by Foggin and Phillips (2013), with an overview of the major development policies and programs affecting local people, livelihoods and landscapes in the province's high altitude grasslands.

[xi] For much of the past two decades, China has largely sought to follow an approach to development referred to as "scientific development" (Fewsmith 2004), which itself emerged from "Hu Jintao thought" and includes two core themes: people at the centre and comprehensive development. This so-called 'scientific' or 'rational' approach to development has then transformed over the years into today's concepts (sometimes rhetoric) in China about building a "harmonious society" and "ecological civilization" as well as "sustainable development" (Pan 2012; Lu et al. 2019). Horizontal policy analysis (HPA) aims particularly to ensure that a comprehensive approach is adopted – as in "scientific development" in China – in the analysis, planning and implementation of development policies, that is, considering and coordinating key goals and issues across multiple sectors.

xii "Citizen science" is here understood as public participation in scientific research, which serves the dual role of increasing public engagement in science as well as broadening the workforce needed to deliver large-scale monitoring of environmental and other resources (Riesch, Potter, and Davies 2013). When moving beyond just the public's participation in scientists' research projects – fascinating as that may be (see, e.g., the platforms Zooniverse, https://www.zooniverse.org; Scientific American, https://www.scientificamerican.com/citizen-science; and SciStarter, https://scistarter.org) – citizen science also has a potential to contribute towards an even greater empowering of people, through what is now termed Extreme Citizen Science (ExCiteS), "science that empowers citizen to deal with issues that directly concern them" (Maynard 2016) (for more information, see UCL's ExCiteS program website, https://www.geog.ucl.ac.uk/research/research-centres/excites).

xiii Public-private partnerships (PPP) are broadly defined as "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance" (World Bank Group 2018). It also is noteworthy that PPPs are distinct from service or construction contracts, as they involve a level of risk as well as opportunities. However, if successful, they can aid in mainstreaming sustainability into the private sector.

Parks Canada was an early adopter of PPPs, which it recognized nearly 20 years ago as enabling for successful ecosystem management, by encouraging such "partnerships that harmonize land-use practices [and] promote sustainable development" (Parks Canada 2000). The collaborative research and wildlife management planning enabled by a public-private partnership, focused on expansion of a highway within a Banff National Park, led to more informed stakeholder engagement and better development (road construction) alongside better wildlife management (impact mitigation) and species conservation (Ford, Rettie, and Clevenger 2009; Jon P. Beckmann et al. 2012).

xiv The upscaling and then anchoring of prior experiences in co-management into provincial legislation and practice, through the provincial Forestry Department, was aided in large part by the UNDP and the Global Environment Facility (GEF)-supported *Qinghai Biodiversity Conservation Project* (UNDP China 2013).

xv Following the study tour to Canada in 2010, Plateau Perspectives and D-Starine collaborated until 2013 with local herders in Longbao village, including community discussions, training in recreational activities and other tourism services, provision of equipment such a rafts and kayaks, and outreach and marketing to introduce startup visitors. From 2013 onwards, the mode of operation was further adapted and shifted from a support-oriented approach to a business partnership. Due to challenges of distance, however, new partners in closer proximity to the provincial capital also were sought… and in this process, tourism operations largely shifted to the Qinghai Lake area. It is here that a 'breakthrough' finally occurred – with a successful model of community ecotourism being continually developed and refined year by year, from 2013 to the present. The beginnings of replication are now underway in Inner Mongolia and Xinjiang Uygur Autonomous Regions, China (since 2014), in Gilgit-Baltistan, Pakistan (2016), around Lake Issykul, Kyrgyzstan (since 2018), in Tibet Autonomous Region, China (2019), and beyond. Further details of this model are included in the main text, and soon will be further illustrated in a film documentary about ecotourism and community conservation in Kyrgyzstan, co-produced by Horseback Planet Society and Plateau Perspectives, based on the ecotourism model first developed in the Qinghai Lake area that builds on local cultural and natural assets, including horse riding and other activities.

xvi Founded over 50 years ago, the Professional Association of Diving Instructors (PADI) has become the gate-keeper for industry standards. In 2016, PADI formalized its corporate social responsibility (CSR) commitment, introducing its "Four Pillars of Change" (PADI Worldwide 2017a) and pledging through these to take an active stance on key social and environmental issues – and inviting all divers to do likewise. PADI's four pillars aim (i) to ensure ocean health, (ii) to protect marine animals, (iii) to train local people in dive destinations in order to foster sustainability, and (iv) to inspire people with stories of triumph over adversity, illness and hardships.

xvii Twelve principles are identified for sustainable tourism (UNEP and UNWTO 2005): Economic viability, local prosperity, employment quality, social equity, visitor fulfilment, local control, community wellbeing, cultural richness, physical integrity, biological diversity, resource efficiency, and environmental purity.

xviii As Loizos (2012) observed, "alternative tourism grew rapidly and out of the need to remedy mass tourism's negative impact on the environment and society, which could affect the attractiveness of a given destination from a long term perspective. Alternative tourism emphasized the idea of preserving social, natural and historical assets of tourist destinations." Alternative forms of tourism may include rural tourism, pro-poor tourism, ecotourism, ethnic or cultural tourism, community-based tourism, agritourism, and more.

xix Ten criteria for successful community based tourism have been identified (Vajirakachorn 2011): Community participation, benefit-sharing, tourism resources conservation, partnership and support within and outside the community, local ownership, management and leadership, communication and interaction among stakeholders, quality of life, scale of tourism development, and tourist satisfaction.

xx Community conservation occurs "when all the stakeholders come together and make a plan that balances the needs of the people with the needs of the local wildlife" (Community Conservation 2019). Similarly, conservation may be achieved by local communities in indigenous and community conserved areas, or ICCAs, which are natural and/or modified ecosystems containing biodiversity values, ecological services, and cultural values, that are *de facto* conserved through local or customary laws and practices related to the governance, management and use of natural resources – whether or not conservation was an explicit objective (Berkes 2009; Farvar et al. 2018).

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Synopsis

Based on the authors' first-hand experience in the development of tourism in the heart of the Tibetan plateau (and more broadly in sustainable mountain development), this report highlights emerging successes in community-based ecotourism ventures as well as challenges they have encountered along the way. Key lessons are extrapolated, along with a broader discussion of tourism and sustainable development.

Special attention is given to the important role that ecotourism can play to advance the conservation of highly valued ecological areas on the Tibetan plateau. Critical conservation landscapes come under a variety of names, both as formal and informal protected areas, and how they are used can greatly affect future socio-ecological outcomes. Recalling the three core tenets of ecotourism – i.e., tourism that positively contributes to conservation outcomes, benefits local communities, and promotes education and environmental awareness – the 'purposeful' nature of ecotourism is highlighted herein.

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