Recreational Policies at China's National Parks:

A Comparative Case Study

Weijie Xu

20102094

Master of International Tourism Management

Supervisor: Associate Professor Heike Schänzel

School of Hospitality and Tourism

Faculty of Culture and Society

Auckland University of Technology

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Abstract

This dissertation examines the recreational policies of China's newly established National Park system. After the designation of the first five National Parks in 2021, there remain some urgent managerial gaps and issues that need to be assessed and resolved, one of which is tourism development. National Parks protect some of the most valuable ecosystems, as well as offer great visitation opportunities. In the Chinese context, the protected area system centres on National Parks aiming to achieve high standards of ecological conservation, national representation, and public services.

Incorporating National Park tourism practices from New Zealand and India, focusing on topics of public access and tourism concession, this research identifies the current shortcomings and challenges in this early stage of China's National Park tourism development. In response to these challenges, this research mainly conducts a comparative case study method to seek inspiration from other countries. It has been found that adaptive co-management would be a feasible framework to follow. Moreover, learning from the lessons and experiences in New Zealand and India, this research also proposes practical recommendations to improve National Park tourism in China. Laying a solid management foundation for the National Park system helps to maximise tourism benefits, but not at the cost of ecological deterioration, especially during the future growth of the number of parks.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signature: Weijie Xu

Date: 27/1/2023

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Last but not least, I would like to express my deepest thoughts to my family and friends in China for their unconditional, unfailing and loving support whenever I need them.

1.0 Introduction

This chapter begins with providing details to the declaration of China's first five National Parks, outlining its background, tasks, and importance in the wider protected area system. Then the topic will be narrowed down to National Park tourism, focusing on the value flow to determine the function of recreational revenue, leading to the topic of this research on how recreational policies can support National Park tourism in China. The research methods and dissertation outline will then be described.

1.1 Background

In 2021, during the 15th meeting of the Conference of the Parties to the Convention on Biological Diversity, China formally announced its first batch of five National Parks after the pilot programmes: Sanjiangyuan National Park, Wuyi Mountain National Park, Giant Panda National Park, Northeast China Tiger and Leopard National Park, and Hainan Tropical Rainforest National Park (see Figure 1). These National Parks cover more than 230,000 square kilometres (2.4% of the total area of China, compared to the figure of the US National Parks of 2.1%), and are key biodiversity hotspots with focal species such as giant pandas (*Ailuropoda melanoleuca*), snow leopards (*Panthera uncia*) and Hainan gibbons (*Nomascus hainanus*) (National Park Service, 2016; CHINADAILY, 2021).

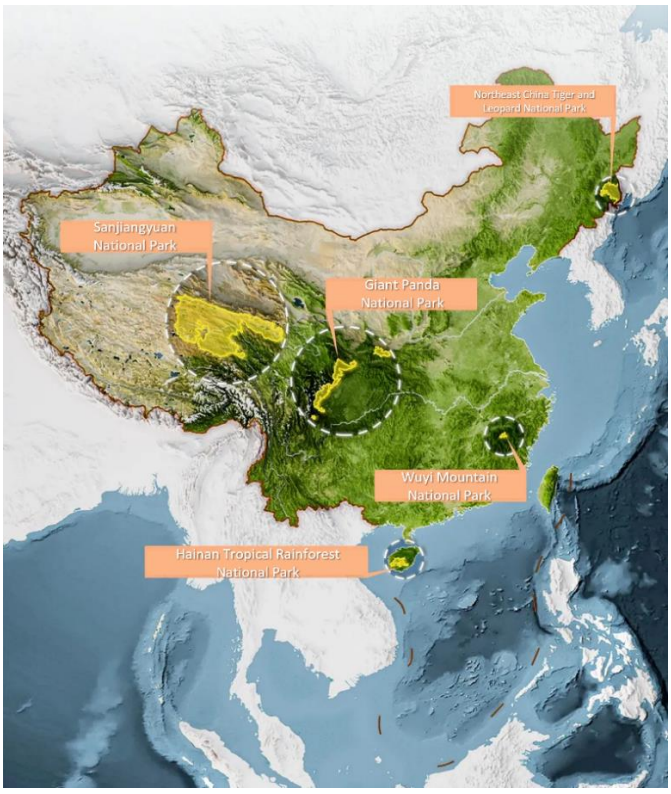

Figure 1. Location Map of China's National Parks (Institute for Planets, 2022).

China has been building various protected areas for several decades. However, the title of National Park has not been used before. The main premises for this new era of National Parks are:

1) the existing protected area system is unclear with inconsistent names, intertwined boundaries and overlapping managerial departments, causing conflicts and inefficiency, and the need for a holistic planning approach;

2) the deepening understanding for natural and cultural conservation, economic growth and technological development make it possible to allocate more resources for National Parks;

3) ecological civilisation is one of the most important development directions for China at this stage in which the "30·60" decarbonisation goal (peak emissions by 2030 and carbon neutrality by 2060) highlights China's ambitious climate promise to the world;

4) the alignment with the global protected area discourse means China can better refer to international experiences and standards, better attract inbound visitors, and better introduce its future practices to the world (Zhong, 2019).

The road map of China's protected area system development has three phases: 1) by 2020, to propose the general layout and development plan, to formulate a banned list of infrastructure projects, to build the classification and management structure, and to establish the first group of National Parks (partly achieved but delayed); 2) by 2025, to improve related laws, regulations, management and monitoring, to initially build the protected area system with National Parks as the major component (classifications: National Parks, Nature Reserves, Nature Parks); 3) by 2035, to significantly improve the managerial effectiveness and the supply ability of ecological products, to cover more than 18% of national land area as protected areas, and to fully establish China's protected area system to a world-class level (National Forestry and Grassland Administration, 2019). Regarding this tight schedule and challenging mandates, the experimental and demonstrative significance of the first group of China's National Parks becomes obvious.

1.2 Key Concepts of China's National Parks

A National Park is defined by the International Union for Conservation of Nature (IUCN) as Category II in the protected area system, referring to large natural or near-natural areas protecting large-scale ecological processes with characteristic species and ecosystems, which also have environmentally and culturally compatible spiritual, scientific, educational, recreational, and visitor opportunities (Leung et al., 2018).

In China's context, as the designation of National Parks follows the characteristics of the most

important ecosystems, the most unique natural landscapes, the best natural heritages, and the richest biodiversity zones (National Forestry and Grassland Administration, 2019), the Overall Plan for National Parks has stated that the key concepts of China's National Parks are ecological conservation first, then national representation and public good for all (National Forestry and Grassland Administration, 2017).

It is indicated by these concepts that a stricter protection strategy would be applied in China's National Parks to sustain their authenticity and integrity, especially inside core conservation zones (compared to general control zones). The concept of national representation emphasises the ownership of land and resources inside China's National Parks, and a nationally unified management structure and interpretation for China's National Parks to present the national image and identity to a wider audience. The concept of public good for all points out that the various ecosystem services provided by National Parks should be enjoyed by the public, and personal visits, experiences, and participation are highly encouraged (National Forestry and Grassland Administration, 2017). These closely related concepts could positively interact with and reinforce each other when they start to drive National Parks forward.

It is suggested by IUCN that although all forms of tourism create environmental impacts, when planned and operated properly, it can be a key channel for National Parks to foster visitors' connection and instil their sense of stewardship, without compromising primary conservation goals (Eagles, 2001; Leung et al., 2018). It is also noticed by the Chinese government that it is crucial to plan and conduct new tourism attempts for National Parks to better support and balance the key concepts, although it is a highly complex task. These valuable experiences can be further applied to other protected areas.

1.3 National Park Tourism

Tourism is one of the key methods to achieve the primary objective of promoting education and recreation in National Parks, but not at the cost of ecological deterioration. Ideally, the goals of nature enjoyment and contribution to conservation are both attainable (Eagles, 2001). However, in a study that interviewed several National Park experts, all of them expressed that "One of the biggest challenges to park management is managing tourism while preserving the natural landscape" (Ferretti-Gallon et al., 2021).

Tourism in National Parks can be mainly identified as cultural services in the four types of ecosystem services framework (provisioning services; regulating services; cultural services; and supporting services), listing the benefits people obtain from ecosystems, as gathered by the Millennium Ecosystem Assessment (MA) reports (Leemans and De Groot, 2003) (see Figure 2).

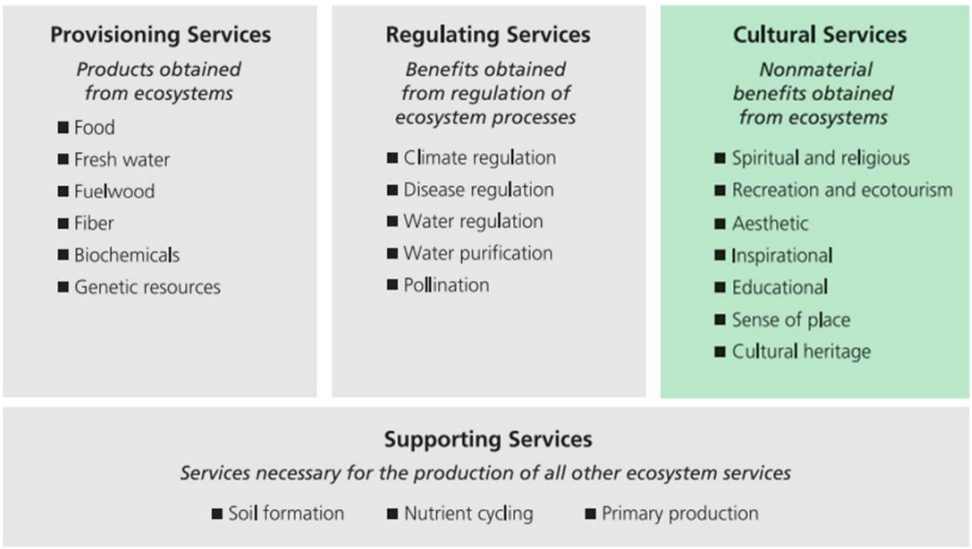

Figure 2. Ecosystem Services (Leemans and De Groot, 2003).

Human beings can derive benefits from the use of ecosystem services directly or indirectly, currently or in the future. The impacts of ecosystem change on human wellbeing are often subtle and multidimensional. Sound ecosystem management involves not only steps to address the utilitarian links of people to ecosystems but also processes that allow considerations of the intrinsic value of ecosystems to be factored into decision-making (Leemans and De Groot, 2003). However, to make the valuation more operational, human wellbeing is often placed as the central focus. Next, to provide a common metric in which to express the benefits of the diverse variety of ecosystem services, they are widely accepted to be quantified in monetary terms as Total Economic Value, broken down into key indicators such as income, health, and poverty. It is important to stress that even incomplete efforts to express impacts in common units can be helpful by reducing the number of different dimensions that need to be taken into consideration (Millennium Ecosystem Assessment, 2005). Thus, ecosystem cultural services can be quantified as economic value, a large part of which is charged to consumers directly or through agencies, as trade-offs for accessing services. Pricing is based on objective assessment but is also modified and adjusted to realistic concerns and situations. For National Parks, it is not a must to generate recreational revenue. However, in real-world situations, National Park tourism often contributes as a supplement to revenue besides government funding because of the conservation finance gap. Yet, it does not automatically flow back to sustain ecosystem value (highlighted in dashed lines, see Figure 3 below) as one of the market-based options in financing mechanisms. Alternative distribution or leakage can often happen (Mulongoy et al., 2008; Leung et al., 2018) (see Figure 3).

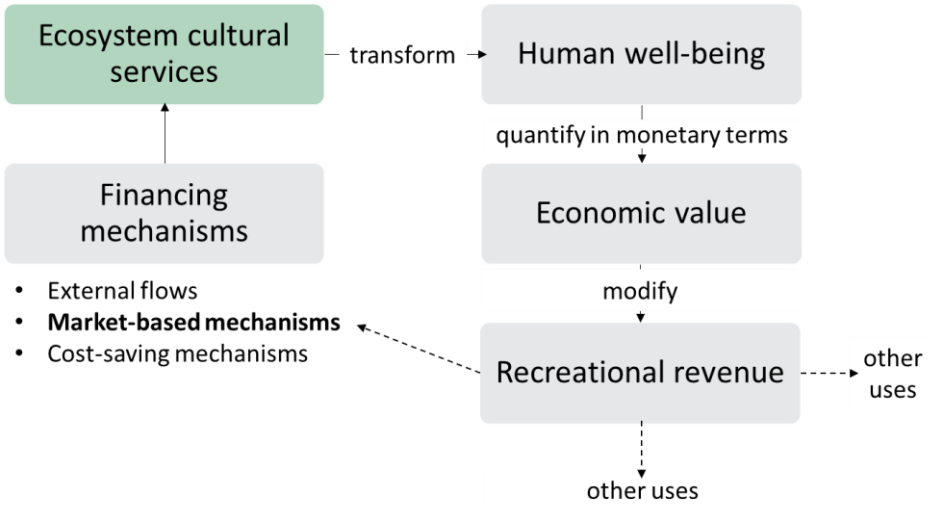

Figure 3. Ecosystem Cultural Services Value Flow (adapted from Millennium Ecosystem Assessment, 2005).

Among various tourism-related financing mechanisms for National Parks, entry fees and concession fees are highly debated (others include tourism taxes, lodging levies, mooring, and landing fees) (Leung et al., 2018). The key reason is that these issues are tied closely to land ownership and the right for all to access these iconic ecosystem services on the planet, presenting the underlying environmental philosophy to front-end visitors.

1.4 Importance of National Park Tourism in China

For National Park tourism issues, although China can learn and follow the global frameworks and practices of other countries, it has a unique context and challenges. Thus, it is important to assess the situations in China's National Parks both from the systematic perspective and the perspective of each park, and to adopt experiences from other National Park systems. Standing at this transformative point for China's National Parks, there remain many questions to be addressed, many topics to be raised, leaving a major potential for expectation. The related tourism management issues are also inconclusive and invite further discussion and exploration (Su & Su, 2018; Zhang et al., 2019). After assessing over 400 Chinese research articles under the key word of National Park tourism from 1982 to 2019, it has been noted that there is an increasing attention toward topics such as National Park community tourism, recreation management, recreation public welfare, and ecological impact of recreational activities. There is also a call for more work on marine National Park establishment, valuation methods of recreational space, and sustainable development models and mechanisms for National Park tourism within the Chinese context (Wang et al., 2021).

Personally, as an enthusiastic tourist, I have been to some of these sites in China before they were announced as National Parks as well as several National Parks in other countries, such as Aoraki Mount Cook National Park in New Zealand, Fuji-Hakone-Izu National Park in Japan, Gorëme National Park in Turkey, and South Downs National Park in England. They have all left me with lasting memories and impressions. That is why I am passionate and curious about the recreational revenue policies of China's National Parks. From a visitor's perspective, I am truly looking forward to revisiting China's National Parks as an "owner", and proudly discovering my identity in those significant landscapes. Meanwhile, from the perspective of postgraduate study, National Parks can be worthwhile research subjects and testing sites to further build the framework for tourism management issues in protected areas.

1.5 Research Aim and Objective

Through reviewing existing frameworks and theories, addressing the Chinese context and comparing with practices of other countries, this research aims to answer the research question of how recreational revenue can better support and balance the concepts of China's National Parks: to achieve ecological conservation, national representation, and public good for all. The main research objective is to identify the current shortcomings and to explore ways to improve National Park tourism in China.

1.6 Research Methods

This exploratory qualitative research follows a subjective-objective epistemology, using a participatory and pragmatism paradigm, which helps bring in the perspectives of different stakeholders in different countries to get insights into China's National Park tourism development.

Further on, the methods of comparative case study and content analysis in the framework of cross-cultural methodologies are used. The comparative case study examines in rich detail the context and features of two or more instances of specific phenomena. Hence, a depth of analysis toward emergent findings can be achieved by discovering contrasts, similarities, or patterns across the selected cases (Mills et al., 2010), which in this research refer to National Parks in New Zealand and India, mainly because of diversity considerations and familiarity considerations.

The general procedures of a comparative case study include design (specify the problem, specify the variables, select appropriate cases, discover causal relations, formulate comparison), implementation, and implications (Druckman, 2005). This research is also designed based on this sequence.

1.7 Structure of Dissertation

After the general introduction, a review of the current globally accepted and used tourism management frameworks and theories for National Parks will be presented in Chapter 2, followed by the Chinese context to analyse whether they are applicable and what are the major obstacles and challenges. Then, the comparative case study methods will be explained in detail in Chapter 3 to reflect on the following selected practices from National Parks of other countries. These practices will be further addressed and discussed focusing on aspects of public access and tourism concession in Chapter 4. Lastly, findings and implications for China's National Parks will be synthesised in Chapter 5, along with practical policy recommendations, possibilities for future research, and reflection.

2.0 Literature Review

This chapter starts with a critical review of the National Park evolution, followed by the complex interaction between diverse stakeholders in National Park management issues. Several well-accepted frameworks will be discussed, including adaptive management, adaptive co-management, and practical criteria. In terms of public access and tourism concession, the ecosystem services value will be related to the policy outcomes towards users. Based on the Chinese context, the key challenges in the tourism development of China's National Parks will be discussed and summarised at the end of the chapter.

2.1 Invention and Evolution of the Idea of National Park

The relationship with nature is an inescapable subject for humans. Historically, through religion and science mainly, humans have tried to explain and understand nature from various perspectives. From the late 18th century, a group of German philosophers, Schelling in particular, started a Naturphilosophie (nature philosophy) thinking which includes humans within nature, as part of an interrelated whole concept, avoiding the mainstream thinking of Kant's dualism. Adopting ideas from German idealism and romanticism at that time, Schelling's work, although not fully satisfying, managed to affect subsequent philosophies, and opened up the possibility of a modern view of nature that does not restrict nature's significance based on scientific terms (Andrew, 2020).

During this same period, growing population pressure and romanticism trends led several royal hunting reserves to become public parks in Europe, for example, Hyde Park in London, Phoenix Park in Dublin, and Tiergarten in Berlin. These urban parks and outdoor recreation areas were considered of vital importance to the health and general welfare of the working classes (Frost & Hall, 2012).

Into the 19th century, scientific research of nature as an object remained dominant, with emerging critical doctrines such as the cell theory, the law of conservation of energy, and the Darwinian theory of evolution. Intriguingly, ecology started to be acknowledged as a formal scientific field, studying interactions and relationships between individual organisms and their environments, rather than as separate parts (Sahotra & Graves, 2016). Movements like transcendentalism centered on Emerson and Thoreau kept reminding people to seek an original relation to the universe in solitude amidst nature, beyond social conformity (Glenn, 2011; Russell, 2019). In this theoretical context, the practice of National Parks was first realised in the United States.

Influenced by European ideas, the US Park designers wished to create a wilderness landscape for the central park in New York, contrasting starkly with the formality of aristocratic European

gardens and the straight lines of the surrounding urban grid plans. With the expansion westward, this idea was successfully spreading across the US and transposed to a non-urban setting. Meanwhile, natural wonders received widespread public interest and were being exploited and overdeveloped, with shoddy and tacky tourism facilities. Noticeably, Niagara Falls was fenced to charge visitors, as stairways, hotels and taverns built up. In 1864, Yosemite was declared a state park, and the term “national park” was applied, albeit as a descriptor rather than a formal title. As visiting wild places became particularly popular with urban dwellers with an increasingly romantic view of nature as well as of greater scientific interests, a series of formal expeditions happened to uncover Yellowstone, including the Folsom-Cook-Peterson expedition in 1869, the Washburn-Langford-Doane expedition in 1870, and the Hayden expedition in 1871. These expedition reports helped to convince the US Congress to withdraw this region from public auction and eventually establish the world's first official National Park in 1872, Yellowstone National Park (Frost & Hall, 2012).

National Parks in the US and related environmental philosophies have prospered since then. John Muir, known as the "the Father of Our National Park System", combined transcendentalism with his political advocacy, and led the establishment of Yosemite National Park in 1890, actively promoting his core belief that “wild is superior”, meaning nature has intrinsic value beyond human needs. Subsequently, some more moderate conservationists included Aldo Leopold, attempting to extend moral concern to cover the natural environment and its non-human contents, and Gifford Pinchot, insisting that nature should be used to provide the greatest good for the greatest number of people for the longest time, leading to the later idea of sustainable development (Glenn, 2011; Andrew & Lo, 2022).

During the 1970s, with over 30 National Parks in the US already, Roderick Nash, a professor emeritus of history and environmental studies, described the idea of a National Park as an “American Invention”, emphasising the unique wilderness and untouched land available in the US. Instead, historian Alfred Runte raised the issue that National Parks were only created because they were regarded as “worthless lands” without alternative economic uses, except for tourism. His hypothesis aimed to debunk the supposed idealism and altruism inherent in the US creation of National Parks. Later, in 2009, it was also notable that historical documentary filmmaker Ken Burns titled his television series *The National Parks: America's Best Idea* to conduct multimedia marketing (Frost & Hall, 2012; Frost & Laing, 2013). Nowadays, the US National Park Service, a federal bureau, is responsible for the management of 63 National Parks to conserve the nation's natural and cultural heritage for the benefit of current and future generations (National Park Service, 2022).

Besides the expansion within the US, the global spread of National Parks may be roughly divided into three main waves. Australia in 1879 (Royal National Park), Canada in 1885 (Banff

National Park), and New Zealand in 1887 (Tongariro National Park) started to embrace this National Park concept. Although taking cues from the Yellowstone model, these early National Parks faced specific challenges, such as the considerable delay between the original deeding of the land with the Māori people in Tongariro National Park of New Zealand, and its final scoping, showing the government's concern of land acquisition and usage (Swarbrick, 2015). During the second wave, in the first half of the 20th century, many European countries or their colonies in Asia and Africa engaged with the idea of National Park (e.g., Jim Corbett National Park in India and Kruger National Park in South Africa). In the third wave, after the Second World War, National Parks spread globally and were perceived from conservation and ecological standpoints in addition to the previous aesthetic, recreation and tourism, and utilitarian perspective. In 1969, IUCN included National Parks as one of its six categories of protected areas according to the level of human activity permitted. While influential, the category definition is more conceptual rather than regulatory. There is no international mechanism for accrediting National Parks so far. Each country can apply whatever meaning suits them. The wide variations in emphasis, including nature protection, tourism, recreation, and strengthening national identity, sometimes conflict with each other, but more often are used in combinations. The concept of a National Park now, like the landscapes, environments, and values that they have come to protect, is constantly changing over time and space (Frost & Hall, 2012; Frost & Laing, 2013; Miller et al., 2014) (see Table 1).

Along with IUCN's protected area categories, this was also the formation period for contemporary systematic environmental philosophy and ethics, concerning the moral relationship of human beings to, and the value and moral status of, the environment and its non-human contents, to examine and weigh up between extrinsic and intrinsic value of nature, between anthropocentrism and non-anthropocentrism, and between civilisation and wilderness. Until now, the application of environmental ethics in protected areas has embraced a broad spectrum of perspectives, ranging from instrumental positions (e.g., anthropocentrism) to intermediate positions (e.g., shallow anthropocentrism, utilitarianism, biocentrism), and deep ecocentric positions (e.g., non-anthropocentrism, eco-holism, deep ecology, Gaia hypothesis). There are also various cross-disciplinary branches, spreading worldwide, such as environmental aesthetics, ecofeminism, social ecology, resacralisation of nature, and green politics (Howell, 2016; Andrew & Lo, 2022; Zhang et al., 2022; Ramukumba, 2022).

Table 1. A Partial List of the National Parks before 1900 and after 2020 (by author).

Parks (first wave)	**Country**	**Year**
Yellowstone National Park	United States	1872
Royal National Park	Australia	1879
Banff National Park	Canada	1885
Glacier National Park	Canada	1886
Yoho National Park	Canada	1886
Tongariro National Park	New Zealand	1887
Sequoia National Park	United States	1890
Yosemite National Park	United States	1890
Belair National Park	Australia	1891
Ku-ring-gai Chase National Park	Australia	1894
Waterton Lakes National Park	Canada	1895
Wilsons Promontory National Park	Australia	1898
John Forrest National Park	Australia	1898
Mount Rainier National Park	United States	1899
Parks (most recent wave)	**Country**	**Year**
Glenthorne National Park- Ityamaiitpinna Yarta	Australia	2020
Río Clarillo National Park	Chile	2020
Himalaya National Park, Nanga Parbat National Park	Pakistan	2020
Salair National Park	Russia	2020
Meerkat National Park	South Africa	2020
New River Gorge National Park	United States	2020
Cleland National Park, Deep Creek National Park, and 4 others	Australia	2021
Sanjiangyuan National Park, Wuyi Mountain National Park, Giant Panda National Park, Northeast China Tiger and Leopard National Park, and Hainan Tropical Rainforest National Park	China	2021
Van Gogh National Park	Netherlands	2021
Šar Mountains National Park	North Macedonia	2021
Van Mijenfjorden National Park	Norway	2021
Salt Range National Park, Tilla Jogian National Park and 2 others	Pakistan	2021
Sierra de las Nieves National Park	Spain	2021
Salla National Park	Finland	2022
Stara Planina National Park, Kučaj-Beljanica National Park	Serbia	2022

The new challenges from modernisation, such as over-urbanisation, population explosion, and climate change, keep people enquiring about the essence of humans and nature. With a growing concern for the end of untouched nature and wilderness, the concept of "sustainable development" was first articulated in the influential Brundtland Report in 1987 to note the increasing tide of evidence that planetary systems vital to supporting life on earth were under strain. This report put more emphasis on social, political, and intergenerational justice in facing environmental issues, appearing to assume a largely anthropocentric view. In addition, there is a

turning away from the conventional Western dualism towards a diversity of environmental wisdom and worldviews. Animistic thinking has been much inspired by Indigenous peoples through their ritual, ceremony, and other practices, arguing that humans are part of the world's self-realising system (Andrew & Lo, 2022; Ramukumba, 2022).

One of the milestones is the inclusion of the "cultural landscape" category into the World Heritage List in 1992, set apart from the original divisions of cultural site, natural site, and mixed site, acknowledging combined spaces of nature and humankind. Tongariro National Park of New Zealand became the first area to be inscribed on the World Heritage List under this category (UNESCO World Heritage Centre, n.d.). However, with much interhuman injustice remaining unsolved (sexism, racism, class exploitation), it makes it less possible to achieve interspecies moral respect for animals, plants, or micro-organisms. Furthermore, the post-modern ideas that humans can perfectly restore the environment (e.g., back-breeding, reintroduction, and taxon substitutes), or even create artificial nature (e.g., functionally equivalent plastic trees to produce oxygen, absorb carbon, and support animal and insect communities), are hardly convincing when human knowledge is not yet sufficiently advanced in fields such as neuroscience, the internal structure of the Earth, and the Universe. Conversely, an alternative agenda of degrowth is supported by a minority of thinkers as the transition to achieve sustainability (Holmes, 2021; Andrew & Lo, 2022).

It can be concluded that the practice of establishing National Parks has contributed to the development of environmental movements which have been deeply influenced by the variations in environmental philosophy. Currently, over 150 countries have established National Parks, from Western-dominant to a worldwide spread (see Table 1), from vast polar regions (e.g., Northeast Greenland National Park of Norway) to dotted islands (e.g., Sainte Anne Marine National Park of Seychelles), from high above sea level (e.g., Sanjiangyuan National Park of China) to below (e.g., Death Valley National Park of the US). The upcoming target for the global protected areas is to effectively protect and conserve at least 30% of the earth’s land, sea, and freshwater ecosystems by 2030. Obviously, National Parks are important compositions for this target (Maxwell et al., 2020; IUCN, 2021). This ambitious target cannot be achieved without alignment in concept and coordination in operation among stakeholders.

2.2 Stakeholders’ Interaction with National Parks

It is pointed out in IUCN’s vision aiming for sustainable tourism in protected areas that it should take full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment and local (host) communities. It is also mentioned that stakeholders working on tourism in protected areas include administrators, managers, and planners, drawn from government agencies, non-governmental organisations

(NGOs), local community groups, private landowners, and other entities (Leung et al., 2018). The roles and needs of these stakeholders involved in sustainable tourism are multi-layered and dynamically changing. Being unrealistic to meet all needs and have a perfect solution, it is possible to compromise for maximum benefits from tourism while minimising its negative impacts, and constantly adapting to changing conditions.

For National Parks, tourism stakeholders could be more complicated. However, it is by clearly identifying stakeholders in an early stage that lays a solid foundation for developing partnerships. The stakeholders' interaction is illustrated in the research quadrants divided by power and interest (see Figure 4). According to Tang (2017), local communities are the key players, who interact frequently with other stakeholders. It is the responsibility of National Park managers to keep government departments and experts satisfied, to keep concessionaires, tourism businesses and visitors informed, and to spend minimal effort effectively on academics, NGOs, media, and volunteers.

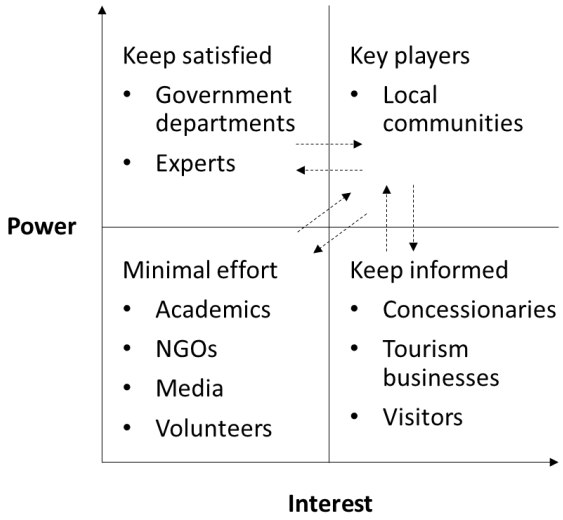

Figure 4. National Park Stakeholders' Matrix (Tang, 2017).

These stakeholders can be further segmented. For example, types of visitors can be categorised by their origins such as local visitors, domestic visitors, and international visitors; or by their knowledge and experience levels such as novices, intermediates, and experts; or by their visit purposes such as researchers, recreationists, spiritual and cultural users, and wildlife seekers; or by who they are with, such as solo visitors, group visitors and family visitors. Furthermore, the local communities are different regarding land ownership, resource ownership, ethnicities, and livelihoods (e.g., long-term residents, new residents, seasonal residents). Even within the same National Park administration, there are voices representing various managerial levels, regions, departments, and perspectives; not to mention some borders to National Parks are linked with

neighbouring countries, communities, and ecosystems (e.g., Northeast China Tiger and Leopard National Park shares borderlines with Russia). Tourism business employees vary from planners, engineers, and construction workers at the early stage, to operators, guides, and sales working at a later stage (Miller et al., 2014; Kark et al., 2015).

Overall, National Park tourism management needs to fully consider and balance the needs among internal and external, direct, and indirect stakeholders, especially marginal groups, to achieve cooperation and resolve conflicts. This can be viewed as a pivotal way to minimise negative impacts and maximise benefits (Eagles, 2001; Jia et al., 2017; Leung et al., 2018). When it comes to management issues such as public access and tourism concession in China's National Parks, similarly the solutions for stakeholders need to be based on the actual situation and rational methods to achieve the key mandates.

2.3 Frameworks for National Park Tourism Management

Since the establishment of the first National Park, Yellowstone National Park in the US, researchers have tried to extract lessons and theories from National Park tourism practices. Many of them are based on certain cases and backgrounds. Recently, several more general frameworks have been developed for National Park tourism management, which are well-accepted to be applied and tested in various situations (IUCN and World Commission on Protected Areas, 2017; IUCN, 2022).

Adaptive management is adopted and promoted by IUCN in its guidelines for sustainability in tourism and visitor management in protected areas to instruct worldwide decision-makers (Leung et al., 2018). The process of adaptive management is depicted as a cycle of conceptualisation, planning, monitoring, implementation, analysis, sharing and learning, in which communication among stakeholders and affected groups is emphasised as key to increased knowledge of and support for sustainability. In practice, effective mechanisms involving representatives of each group need to be in place during this cyclical process and the output records, documents and information need to be symmetrically open and transparent. For instance, visitors, tour operators and communities are often more willing to pay and support when it is clear to them how their contributions will benefit the National Park conservation, through channels such as workshops, annual reports, or newsletters (Leung et al., 2018; Han, 2021; Loureiro et al., 2022).

Plummer and Fennell (2009) have taken it a step further by applying adaptive co-management to sustainable tourism in protected areas, which is a progression from co-management and adaptive management. Adaptive co-management focuses on capacity-building for all those involved, highlights vertical and horizontal, spatial, and temporal linkages in this learning

process, and requires multiple iterations over time. It is suggested that the process consists of six stages: defining the social-ecological systems; identifying and describing the tasks required; clarifying the participants; analysing linkages; assessing capacity-building needs; and recommending solutions (see Figure 5).

Beratan (2014) has stated that in adaptive co-management, information exchange among stakeholders, which is at the heart of collaboration, requires trust-based relationships. This process seems complex and time-consuming considering the quantity and difficulty of managerial issues in National Parks or protected area systems. However, it is precisely for these features that adaptive co-management is more interactive and flexible than traditional top-down forms of management to match National Park tourism issues with multiple scales and often with competing interests. In addition, the initial efforts and costs to apply this process may be considerable but over the long-term effectiveness and efficiency can be improved, thus costs and risks can be shared (Cundill & Fabricius, 2010).

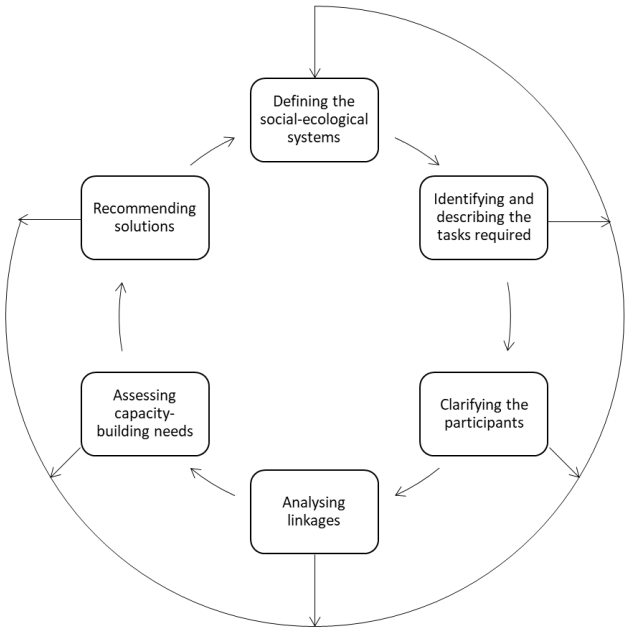

Figure 5. Adaptive Co-management Process (Plummer & Fennell, 2009).

The Global Sustainable Tourism Council (GSTC), an international non-governmental organisation with members around the world, has developed detailed criteria for certification and accreditation programmes that are applicable to protected areas (Leung et al., 2018). The GSTC Destination Criteria consists of 41 criteria in four main sections: sustainable management; socio-economic sustainability; cultural sustainability; and environmental sustainability. They are supported by a suite of performance indicators and related SDGs (Sustainable Development

Goals) that managers can adapt to their protected area as needed (https://www.gstcouncil.org/gstc-criteria/gstc-destination-criteria/). When testing the Criteria to US National Parks, it is apparent that taking individual National Parks as destinations, is helpful and effective in identifying potential shortfalls and prioritising strategic initiatives especially when resources are limited; although it is still necessary to slightly revise the indicators to fit certain contexts (Bricker et al., 2022). Many other National Parks are also certified as sustainable destinations by GSTC or use the criteria to identify gaps for improvements (Bushell & Bricker, 2017; GSTC, n.d.).

2.4 Valuation Methods for Public Access and Tourism Concession

When following the above frameworks and guidelines of National Park tourism management, it is important to have certain valuation methods for monitoring, collecting data, assessing, and making solid decisions. For example, it is suggested in the GSTC Destination Criteria that direct and indirect economic contribution of tourism to the destination's economy is monitored and publicly reported (Criteria B1). Established valuation methods can bridge this target, with the massive clutter of information generated in National Parks, by guiding National Park managers to select useful information with purpose in mind, conduct quantification and objective analysis, and report to the public in a more explicit and understandable way (Millennium Ecosystem Assessment, 2005). This is also the case for public access and tourism concession issues in National Parks. Effective valuation methods and mechanisms are needed to support the recreational policy outcomes.

Usually protected areas have different restricted levels of public access, in terms of amount of use, group size, activity, and so forth. A common feature of valuation methods of ecosystem services towards visitors is the measures of change in human wellbeing that are reflected in people's willingness to pay or willingness to accept compensation for changes in using a particular service or services (Millennium Ecosystem Assessment, 2005). Main valuation methods can be grouped into revealed preference methods (e.g., replacement cost, travel cost method), and stated preference methods (e.g., contingent valuation, choice modelling). Each method has different data requirements and limitations, such as overestimation or potential bias. In general practices, it has discovered that direct observation-based methods are preferred to indirect hypothesis-based methods (Millennium Ecosystem Assessment, 2005; Zou et al., 2021; Walls, 2022). For National Parks, as visitor use and experience is often one of the management objectives, the calculation results of ecosystem service values will be considered together with other factors, such as financial pressures, market competitions, visitor profiles, and access management needs, to form the user-pays strategies. Entry fees, although widely used, are only one of the policy choices, considering the relating implementation and operation costs.

In cases of fully funded, traffic-seeking National Parks, free access can be applied and taken as

an essential public service (allocation of tax to National Parks is another imperceptible way of paying for ecosystem services). Pricing policies such as package tickets, multi-day passes, and differential pricing are frequently used in National Park access strategies (Zou & Li, 2021; Zou et al., 2021). For example, the US National Parks mainly offer interagency annual passes, single-site annual passes, and single-site 7-day passes for visitors on their official website. The price per person for full vehicles or motorcycles is often lower than for a non-motorised individual (https://www.recreation.gov/pass/). On the other hand, New Zealand National Parks offer free access while international visitors will be charged more than domestic visitors when using facilities like huts or campsites according to different visiting seasons (https://www.doc.govt.nz/about-us/our-role/managing-conservation/recreation-management/great-walks-management/pricing/). An integrated website is not available for Ecuadorian National Park ticketing selling. But for Galapagos National Park, the distribution of ticket revenue is clearly listed on its website, highlighting visitors' contribution to the conservation efforts (https://www.galapagos-islands.com/travel/transportation/entry-fees.html).

On the other hand, tourism concession is a type of rationing directly towards service providers. Similar to public access, ecosystem services value is one of the fundamental parameters for managing National Park tourism concessions. However, tourism concession is a more complex system as it operates closely, but not freely with, the market. In a simplified model, tourism concessionaires pay for the resources from National Parks and charge higher to consumers to gain profit, as intermediaries. However, it is the responsibility of National Park managers and authorities to weigh the trade-offs between environmental, financial, developmental, and other returns, and ensure an overall positive outcome for National Parks, concessionaires, and consumers (Thompson et al., 2014). Tourism concession systems are widely developed in protected areas, including National Parks, as they often work with more market capabilities, procedural flexibilities, innovative freedom, and fewer constraints (Thompson et al., 2014; Leung et al., 2018).

The process of managing tourism concessions is generally divided into: planning, awarding, and monitoring, by United Nations Development Programme (UNDP) (Thompson et al., 2014), or as four phases: scoping; design and feasibility; procurement, negotiation and contracting; and management, by IUCN (Spenceley et al., 2017) (see Table 2). Although setting concession fees is represented in only a few articles in the concession contract, it is relevant to every phase of the concession management process. For instance, during the scoping phase, issues such as whether to use a centralised or decentralised structure for decision-making, how to define different concession categories (e.g., concession, lease, licence, permit), and what types of tourism product should be conceded (e.g., whether to insource or outsource, how to separate concession from livelihoods of local communities), need to be clarified for setting concession fees.

Table 2. Generic Phases of Concession Process (adapted from Thompson et al., 2014 and Spenceley et al., 2017).

UNDP Phases	**IUCN Phases**	**Output**
Planning	Scoping	Strategic plans & guidelines
	Design and feasibility	Business plans
Awarding	Procurement, negotiation, and contracting	Concession contracts
Monitoring	Management	Reports

During the design and feasibility phase, an overall understanding of the potential concessionaires (e.g., whether they are private companies, NGOs, community-owned enterprises, or joint-venture companies, and what to do with not enough concessionaires), and market-based forecasts from comparable benchmarks, need to be generated. During the contracting phase, the negotiation process (e.g., expression of interest, tender, or auction) can affect the outcome, as well as the decision-making criteria. The actual concession fees can be structured in many ways in this phase. Commonly used fee formulas include revenue-based fee formulas, per-unit fees, fixed fees, waivers, or combinations. They are chosen depending on authorities' capacity for monitoring and auditing. During the post-awarding phase, tourism concessionaires have the right to monitor the managers in revenue allocation and distribution. Meanwhile, the contracts can be revised according to operational or market conditions (e.g., change of terms, renewal, termination) (Thompson et al., 2014; Spenceley et al., 2017). For example, tourism concession fees of New Zealand National Parks include annual management fee, monitoring fee, and activity fees, which vary mainly according to concession categories, whether commercial or not, and business sizes (https://www.doc.govt.nz/get-involved/apply-for-permits/managing-your-concession/ongoing-concession-fees/).

2.5 Chinese Context of National Park Designations

These existing frameworks, methods, and global practices have built a solid foundation for China's National Parks as a newcomer, to learn from and adopt. However, China also has its unique environmental, economic, and socio-cultural backgrounds.

Western contemporary environmental philosophy and ethics were imported into China around 1980. After following and adopting these external paradigms for decades, Chinese academics have started to trace back to traditional wisdoms seeking solutions for its unique environmental problems and for the global civilisation dilemma, refusing to fall into the Western path of fixing after the damage has been done. The frequently discussed environmental perspectives in China come from Confucianism, Daoism, Buddhism, and Marxism (Li, 2011; Li & Li, 2019; Cao,

2022). In Confucianism, the ideal relationship between humans and nature is depicted as *tian ren he yi*, which can be translated as a state of harmonious integration. However, the definitions of *tian* and *ren* here are quite ambiguous. In practice, Confucianism focuses more on the rationalisation of the imperial power, and the secular pattern. Virtue makes humans superior to other creatures. Natural phenomena are often taken to signify social operation and human virtues (Yan, 2007; Chen, 2020).

In contrast, Daoism takes a deeper look into nature. Nature in Daoism is understood as an entity made up of *qi*, which contains the meaning of energy, force, and spirit. The key features of *qi* include creativity and emptiness. Emptiness holds the inexhaustible vitality of creativity, so that *qi* flows continuously in a process of production and reproduction. Nature is regarded by Daoism as an extended body and spiritual home for humans. Besides these philosophical explanations, traditional Chinese society equilibrates between an instrumental nature mainly through agricultural production, and an aesthetic and respected nature mainly through painting and poetry (Yan, 2007; Gao, 2012; Chen, 2020; Nelson, 2020).

With the introduction of Buddhism to China, the environmental philosophy embedded in it became widespread. Buddhists believe that all beings are equal and have Buddhahood, so compassion and love for life are seen as a Buddhism practice. Vegetarianism is often encouraged among Buddhists. Additionally, Buddhism teaches nondualism, containing the idea of the oneness of humans and nature (Yu, 2006). More recently, the Marxist view of the environment cannot be ignored in the development of Chinese environmental philosophy. Marxism advocates the reinvention of nature, while being wary of the ecological damage caused by the capitalist mode of production. The material exchange between humans and nature is achieved through labour. And the relationship between humans and nature, and humans and humans, are two sides of the coin in this process. For Marxism followers, capitalism alienates labour and creates antagonism in between. Communist society, instead, is one in which the free association of producers controls the material exchange and thus achieves equal sharing of natural resources (Cao, 2020; Li & Cao, 2020; Ge, 2022).

From above, it is revealed that China's environment philosophy is diverse and inclusive. When applied and practised in National Parks, more exploration and innovation are needed (Li & Zhao, 2020). Therefore, it is worth identifying and stressing the key challenges in the tourism development of China’s National Parks. There are major differences between the current five National Parks in terms of size, percentages of state-owned land, local population, and tourism situations, which significantly affect both central and park-specific tourism management (see Table 3).

Table 3. Overview of China's National Parks (Sanjiangyuan National Park Authority, 2018; Northeast China Tiger and Leopard National Park Authority, 2018; Wuyi Mountain National Park Authority, 2019; Giant Panda National Park Authority, 2019; Hainan Tropical Rainforest National Park Authority, 2020; Shan Shui Conservation Centre, 2022).

	Sanjiangyuan National Park	**Wuyi Mountain National Park**	**Giant Panda National Park**	**Northeast China Tiger and Leopard National Park**	**Hainan Tropical Rainforest National Park**
Area (km²)	123,100	1,001	27,134	14,926	4,403
Subareas (branch authorities)	3	2	4	10	7
State-owned land	100%	33.4%	71.4%	91.4%	80.7%
Province(s)	Qinghai	Fujian Jiangxi	Sichuan Shanxi Gansu	Jilin Heilongjiang	Hainan
Master plan	In effect: untill 2025 In preparation: current to 2030				
Tourism plan	Ecological demonstration, nature experiences, scientific research	Eastern nature experiences, western scientific educational experiences, central forest cultural experiences, southern leisure experiences	Outdoor classes, online education, ranger experiences	Outdoor classes, online education, ranger experiences, nature education at entrance communities	Ecological demonstration, rainforest experiences, ethnic culture experiences
Local population (thousand)	60	3	121	62	30
Public access	4 main entrances	10 main entrances, 15 entrance communities	6 main entrances	13 main entrances and entrance communities	8 main entrances, 9 entrance communities
Tourism concession	Ecotourism, education, cultural performances, retail activities, accommodations, restaurants, and so forth	Guiding, rafting transportation, accommodations, restaurants, and so forth	Adventure tourism, retail activities, transportation, accommodations, restaurants, and so forth	Underwood products, rafting, accommodations, restaurants, and so forth	Ecotourism, education, outdoor activities, guiding, retail activities, transportation, accommodations, restaurants, and so forth

2.5.1 National Park Act and Related Policies in China

The management of a country's National Parks is guided by its constitution, public laws, international treaties and regulations, guidance, policy, protected area plans, and other country-specific actions. A common hierarchical legal framework includes national laws or acts, park-specific regulations, and park-specific policies (Thompson et al., 2014). This legal framework works together with other legal documents related to tourism, public service, pricing, and concession, to jointly lead the way for National Park tourism (see Table 4).

Table 4. Key Policies for China's National Park Tourism (by author).

Year	Authority	Policy	Highlights
2017	National Forestry and Grassland Administration	Overall plan for the establishment of a National Park system	- Key concepts: ecological conservation first, national representation, and public good for all - A centralised, hierarchical management system - Financial support mechanisms, ecosystem conservation mechanisms, and community coordination mechanisms
2019	National Forestry and Grassland Administration	Guideline on protected areas, with National Parks as the major component	- Overall objectives and timelines for protected areas - Classifications and features: National Parks, Nature Reserves, Nature Parks - Clarifying ownership of natural resources and zoning: core conservation zones, general control zones - Innovative development mechanisms - Monitoring mechanisms
2019	General Office of the CPC Central Committee and the State Council	Opinions on conducting the reform of the property rights for natural resources assets	- Promote the ownership registration of various types of protected areas such as National Parks and essential ecological districts - Improve the concessions of natural resources assets in protected areas, and build up an ecological economy focusing on industrial ecology and ecological industrialisation; encourage expansion of protected areas through leasing, replacement and redemption for national and regional ecological security - In areas such as National Parks, explore pilot ownership incentive mechanisms, and include social capital for ecological protection and restoration
2021	National Forestry and Grassland Administration	14th Five-Year Plan (2021-2025) for the protection and development of forestry and grassland	- Building high-quality National Parks - Optimising the layout of protected areas - Improving ecosystem services

2021	National Development and Reform Commission	14th Five-Year Plan (2021-2025) for public service	- The boundaries between essential public services, non-essential public services and livelihood services are constantly changing - Livelihood services (including tourism) being more diversified at multiple levels, encouraging non-government engagement
2021	General Office of the CPC Central Committee and the State Council	Opinions on establishing complete mechanisms for value realisation of ecological products	- Clarifying ownership of natural resources - Valuation for ecological products - Promoting the market of ecological products - Improving compensation for ecological products - Supporting value realisation of ecological products
2022	National Forestry and Grassland Administration	Interim terms for the management of National Parks	- Each authority prepares a master plan within one year of establishment and prepares sub-policies or measurements - Each authority explores the feasible ways to transfer remaining communal-owned assets to state-owned assets - Each authority and the regional government (above county level) jointly supervise and manage surrounding infrastructure projects - A unified brand logo for China's National Parks, individual logos for each park - Inside core conservation zones, local communities are allowed to keep necessary productive livelihoods at their current scale - Inside general control zones, ecotourism is allowed, prioritising local communities employed as park rangers or other related roles
2022	National Forestry and Grassland Administration	National Park Act (not yet in effect)	- Develop coordination mechanisms - Complete boundary survey by provincial government, set boundary markers by National Park authority - Manage revenue from entry fees and concessions separately as income and expenditure - Conduct seasonal differential control in core conservation zones - Set up recreational areas and experiences in general control zones

One year after the establishment of China's first five National Parks, the fundamental legal framework has not been fully set up. At the national level, the most referable and legitimate document in effect, for now, is the Interim Terms for the Management of National Parks, which does not have the legal effect as a national law or act. The newly issued National Park Act is still in the process of calling for public comments and is not in effect yet (National Forestry and Grassland Administration, 2022c). This period without any overarching law for reference can easily cause unstructured and uncoordinated operations. The master plan for one National Park may even partly contradict the others, leaving potential problems for adjustments. It might be acceptable to operate National Parks in an absence of any national law or act at an early stage to generate ideas from actual operations for the legal framework. Nevertheless, it is still necessary to point out the goals, principles, and concepts for shaping National Park systems in an overarching law as early as possible, rather than operational details (Dilsaver, 2016). Furthermore, for National Park tourism, the existing legal terms are quite ambiguous. For example, the categories allowed for tourism concessions and their criteria have not been clearly defined in these documents.

2.5.2 Management Structure of National Parks in China

The management structures of National Park systems can be generally grouped into three types: top-down or centralised, local self-governed or decentralised, and combined (Leung et al., 2018; Zhong et al., 2019). Although according to the adaptive co-management framework (see above in section 2.3), the knowledge and decision-making process is shared among National Park stakeholders, the boundaries of power and duties should be clearly defined to avoid omissions or conflicts.

Since 2018, the title of National Park Administration has been officially added to National Forestry and Grassland Administration (see Figure 6), to represent the stewardship of state-owned natural resources in China's National Parks, marking a step towards unified centralised management of National Park affairs. According to Article Five of the National Park Act (not yet in effect), National Parks are either under the direct management of the central government (National Park Administration) or under provincial governments entrusted by the central government. As for now, Giant Panda National Park and Northeast China Tiger and Leopard National Park follow the former structure, while the others follow the latter.

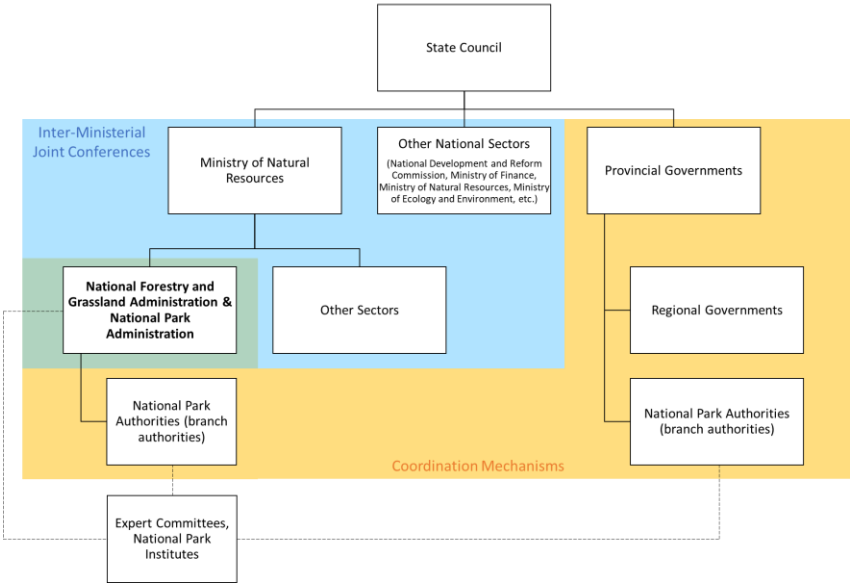

Figure 6. Management Structure for China's National Parks (by author).

According to Article Seven of the National Park Act (not yet in effect), inter-ministerial joint conferences are responsible for the top-level strategies and plans of the entire National Park system, while coordination mechanisms among local governments at all levels and their National Park authorities are responsible for the management of individual parks. In this management structure, National Park Administration takes a core position to initiate, integrate, and regulate. However, there seem to be some ambiguities and potential risks that need more rationalisation and clarification. Firstly, the current National Park Administration is competent in terrestrial resources regarding its original scope, which can be part of the reason why the first five National Parks are all inland. But it is necessary to consider other types of ecosystems, such as marine, coastlines, and coral reefs (Eagles, 2001; Wang et al., 2019).

Furthermore, effective management often needs to exceed the boundaries of National Parks. According to Article Six of the National Park Act (not yet in effect), local governments are mainly responsible for economic development, social management, public services, disaster prevention and mitigation, and market supervision issues of the National Park(s) within their administrative area. National Park authorities are mainly responsible for natural resources, ecological protection and restoration, concession management, social participation, scientific research, and education within the park. In a nutshell, general socio-economic and livelihood issues are attributed to local governments, while park-specific issues are attributed to National Park authorities. It leaves concerns when disagreements occur among several local governments of a cross-regional National Park, especially where one region dominates the natural resources of the park (e.g., 74.4% of Giant Panda National Park land area is in Sichuan Province). Another example of the difficulties in cross-boundary coordination is the establishment of

entrance communities. They are closely attached to the park, yet they are not within the management scope of National Park authorities as they are located outside of the park boundaries (Kark et al., 2015).

2.5.3 Financial Considerations of National Park Development in China

Low levels of funding for protected area management are a universal concern. Most governments do not have sufficient budget allocations for protected areas. As a result, there is increasing pressure for them to strengthen existing revenue streams, as well as expand revenue portfolios to fill the finance gap. Tourism development provides protected areas with an opportunity to generate cash flow, from ways such as fees, concessions, and philanthropy. It is desirable that a large percentage of the tourism revenue, if not all, will be directly reinvested in the workings of park conservation (Eagles et al., 2001; Leung et al., 2018).

Broadly speaking, National Park tourism can benefit the local economy by driving consumption and revenue redistribution. Consequently, it is now increasingly recognised that it is critical to move from the site-level approach to the system-level approach, assessing financial needs and gaps as well as financial viability and diversifying financial mechanisms, in accordance with regional- and country-level sustainable financing plans (Mulongoy et al., 2008). A controversial example is that for the Department of Conservation (DoC), the National Park managerial authority of New Zealand, because of the decrease in government funding, there is an increasing concern that the conservation mandate may be compromised by a political drive for more commercial and short-term economic orientation (Mitchell et al., 2013).

China's National Parks have the same financial issues about how to generate fundings and where to prioritise in using them. According to the National Park Act (not yet in effect) and related fiscal policies, the funding is mainly generated from central and regional government budget allocations, and other specific funds, which have been approximately six billion RMB since 2017. It is specifically mentioned that revenues like entry fees and concession fees should be separately managed as revenue and expenditure, in accordance with the fiscal budget. Moreover, the emphases of financial redistribution for National Parks are ecosystem restoration, National Park establishment and operation, community engagement, research and education, and international cooperation. Among these expenditures, the amount of ecological compensation for local communities is significant. The development of tourism helps to increase the effectiveness of compensation usage. Small funds from tourism revenue like human-wildlife conflict insurance can cover part of the losses of livestock predation, as well as increase the possibility of wildlife viewing by visitors, causing tourism engagement and wildlife protection (Fan et al., 2021; National Forestry and Grassland Administration, 2022b; National Forestry and Grassland Administration, 2022d).

2.5.4 Human-land Relationships in China

Globally, 50-85% of National Parks have been declared on Indigenous lands. There is a long history of Indigenous exclusion and forced removal from these parks, regarded as "wilderness" areas, with few benefits for conservation or park tourism. From the initial attitude of exclusion and removal, it gradually evolved to other stages of conflict and contestation, negotiation and co-management, development, and consolidation. Tourism now also addresses Indigenous rights, interests, and employment or enterprises in co-managed National Parks. A well-known example is the Uluṟu–Kata Tjuṯa National Park of Australia, which was once excised from the Indigenous reserve for decades. Now they have regained ownership and their voices in tourism decision-making (Frost & Hall, 2012).

In IUCN's discourse and definition, "local or host community" refers to a social group of any size whose members reside in or near a protected area, which shares a government and may have a common cultural and historic heritage. It is specified that sustainable tourism in protected areas should respect the rights of Indigenous peoples and local communities and their sociocultural authenticity, conserve their built and living cultural heritage and traditional values, support intercultural understanding and tolerance, and contribute to poverty alleviation. Instead, the potential negative impacts of tourism exploitation on local communities can be severe, economically alone including low-quality employment, economic leakage, dependency on tourism, unequal distribution, and inflation (Leung et al., 2018).

Su Yang, a researcher affiliated with the Chinese State Council, has noted in an online workshop by Shan Shui Conservation Centre (2022) that one of the most distinctive features of China's National Parks is the large community population inside and the complex land ownership (see above in Table 3). The livelihoods of these local communities are highly dependent on the natural resources from National Parks. They have lived on communally owned land for generations, conducting traditional farming, herding, fishing, or collecting (e.g., caterpillar fungus collecting in Sanjiangyuan National Park). Some of the local communities participate in leasing state-owned land for mining, hydropower, or commercial forestry. The local communities are an inseparable part of the cultural landscapes of National Parks, but when approaching their core interests, they are likely to hold different views on tourism development and ecological compensation, due to their different locations, ethnic background, and alternative livelihood capacities (e.g., in Hainan Tropical Rainforest National Park, there are 47 village communities containing residents from more than 40 ethnic groups, such as Li and Miao Hainanese; another 50,000 people live within three kilometres from the park boundaries) (Xing & Heaton, 2021).

The local communities can pose challenges for National Park tourism management. For example, it is difficult to separate visitors from relatives of the locals when charging tickets, and

to regulate unauthorised local guides or homestays. On the other hand, their tangible architectures, tools, and intangible knowledge, skills, culture, values, and livelihoods, originated from the environment, can become highlight tour objectives for visitors, when organised and presented appropriately and authentically (He, 2019).

2.5.5 Visitor Management in China

As National Parks are usually regarded as high-standard protected areas with characteristic species and ecosystems, they are likely to be quite popular, under high visitor pressure. While some National Parks face under-tourism problems, and not playing an effective role in education and recreation (e.g., Gates of the Arctic National Park & Preserve was the least visited National Park of the US in 2021 with 7,362 visits). Overall carrying capacity calculation and monitoring do not fully reflect the issue of unbalanced visitor distribution in terms of time or space. In real situations, the visitation of National Parks tends to concentrate on a small percentage of all potentially available areas and hours. If some peak use can be shifted, the pressure might be relieved. The recommended solutions include increasing supply of tourism opportunities, limiting problematic visitor uses, zoning, rationing, and enforcement (Leung et al., 2018).

Likewise, visitor pressure varies considerably among China's National Parks. Some areas of the National Parks have been ticketed scenic attractions for a long time. For example, 90% of annual visits (more than three million) to Wuyi Mountain National Park are concentrated in the eastern scenic area, accounting for 7.7% of the total area, not to mention the instantaneous visitor flow during peak hours and holidays (Wuyi Mountain National Park Authority, 2019). On the contrary, Huanghe subarea of Sanjiangyuan National Park only issued 2,000 visitor permits in 2021, implementing tight access restriction (Luo, 2021). It is considered desirable that high value tourism can be developed in China's National Parks, rather than conventional mass tourism, meaning local visitors, domestic visitors, and inbound visitors, each with their intention of rediscovering the homeland, enjoying the great landscapes, and encountering the authentic China. In this scenario, the purposes of national representation and public good for all of China's National Parks will be easier to accomplish. Entry fee and tourism concession mechanisms can contribute as flexible induction and moderation instruments.

2.6 Conclusion

Contemporary Chinese environmental philosophy inherits traditional ideas but also blends with Western thinking. China's National Parks, influenced by this, while learning from mainstream frameworks and experiences, possess a unique context that requires the localisation of this

imported concept. In the current initial stage of National Park tourism in China, critically drawing on a wide range of external practices can help to reduce detours and to follow up quickly in this global discourse.

From the tourism practices of the existing five National Parks, the deficiencies in policy frameworks, management structures, funding, land ownership, and visitation operation have become more and more apparent and urgent. It is necessary to think out of the box and take a broader look at the experiences of other countries. As a result, ideas for improvement can come from a cross-national comparison among National Parks. Their recreational revenue policies can be an inspiration and indication to China. Applying this comparative case study method, the National Park cases of New Zealand and India will be discussed in later chapters.

3.0 Methodology

This research uses the participatory paradigm and pragmatism paradigm. A participatory paradigm supports the co-creation of knowledge via participation in experiences and collective interactions amongst participants. In particular, it creates and values experiential and practical knowledge, which is neither solely objective nor solely subjective (Jennings, 2010). For the pragmatism paradigm, it is invariably the nature of the research question that is the key driver, so that using mixed designs and methods from across the traditional paradigm boundaries might be preferable. Additionally, pragmatism suggests that an approach is true if it works in terms of knowledge advancement or benefit creation (Henderson, 2011; Brotherton, 2015).

As National Park tourism is an evolving socio-cultural topic with strong contextual relevance and many stakeholders, this research aims to open pragmatic discussions on National Park tourism in China, taking different stakeholders into consideration, through recreational revenue, to explore how to achieve better management outcomes.

3.1 Cross-cultural Methodologies

Cross-cultural methodologies for tourism research advocate the need to understand a range of cultural ways of knowing along with the development of cross-cultural research methodologies and methods. In a globalised world, cross-cultural research plays an essential role in understanding the multiple phenomena of tourism. It can adopt a situated and reflexive subjective-objective epistemology with the privileging and recognition of non-Western worldviews. The focal principles of cross-cultural methodologies include respect for practical cultural rules, awareness of language and translation bias, and engagement with mainstream cultures and subcultures. It is suggested that the best way to develop cross-cultural research is to immerse in the relevant literature as well as familiarise with the relevant cultures, for example, involving cultural insiders as researchers (Jennings, 2010).

Taking China’s National Parks as major research objects, it is appropriate to adopt cross-cultural methodologies here aiming to ground in Chinese environmental philosophy, expand research horizons from Western cases to non-Western cases, and explore practical tourism experiences that can be drawn upon. In addition, the author's Chinese cultural background and exposure to cultures selected for comparison, can contribute to the understanding of Chinese literature, and reduce cultural bias in this research.

3.2 Methods

To gain in-depth empirical tourism experiences from National Park practices, the comparative case study method and content analysis method are adopted in this qualitative exploratory research, which both fit cross-cultural methodologies. Hence, the context and features of instances can be examined in rich detail towards emergent contrasts, similarities, or patterns across the selected cases (Mills et al., 2010).

The comparative case approach uses an iterative analysis of each case on a limited number of variables with final comparisons of emergent themes and explanations. These comparisons can be structured as either between-case or within-case studies (Mills et al., 2010). Even though this research is designed as a small case-oriented cross-national comparison, unlike the balanced emphasis comparison this research centres on China's National Parks to learn from the initiatives undertaken by others and improve the understanding by referred cases, also interrelated with the global National Park process (Bourgeault et al., 2015).

Another issue to consider regarding the comparative case study method is the selection between the method of agreement/the different systems design/the positive approach, and the method of difference/the similar systems design/the negative approach. While the former involves selecting cases displaying similar properties/outcomes/dependent variables to assess the associated conditions/causes/independent variables, the latter involves selecting cases displaying different outcomes to identify the key causes that vary systematically in line with the outcomes (Ebbinghaus, 2005; Druckman, 2005; de Vaus, 2008; Perri & Bellamy, 2012; Lieberson, 2012; Brotherton, 2015). Identifying and weighing similarities and differences between cases selected on criteria of relevance is the task of comparative analysis. It is particularly challenging to compare rigorously countries with significant geographical, historical, or cultural variations and focus on relevantly similar phenomena (Perri & Bellamy, 2012).

This research method is also concerned with compared variables, and whether the number of possibilities, the scope of categories, and the degree of absence/presence are reasonable enough to support causality (Ebbinghaus, 2005; de Vaus, 2008; Lieberson, 2012). In cross-national comparison, the misalignment between cultural and national boundaries can be another problem. Cultures need to be considered as fluid, organic, and diverse. The comparability across nations lies on both universal system factors and unique factors shaped by the nation establishment (de Vaus, 2008).

The general procedures for conducting a comparative case study follow the three phases: design (specify the problem; specify the variables; select appropriate cases; discover causal relations; formulate comparison), implementation, and implications (Druckman, 2005). Potential impediments include prohibitive travel costs, inequivalent terminology, and a lack of accessible

documents (Jurkowski & Tracy, 2001).

Content analysis is commonly used in tourism research to assess secondary data or empirical material sources. Qualitative content analysis emphasises discovering what the materials being studied reveal without a prior hypothesis, and interpreting the contents based on the social setting or context from which they are drawn (Jennings, 2010).

In awareness of the above challenges of research design, due to the multifaceted nature and complexity of National Park tourism issues in China, this research is not limited to applying the method of agreement or the method of difference. Rather, it is expected that rich insights can emerge through the process of applying cross-national comparison flexibly.

3.3 Selection of Variables and Cases

The key dependent variables in this research are public access and tourism concession selected from recreational revenue generated from National Park tourism. Entry fees and concession fees are widely recognised and applied as major market-based mechanisms to support National Park finance (Leung et al., 2018). In related Chinese documents, entry fees and concession fees are also highlighted regarding financial mechanisms for National Parks (National Forestry and Grassland Administration, 2022b). They are variables of commonality and importance for National Park management. Additionally, the generation and distribution of these recreational revenues influence multiple stakeholders, including National Park authorities, tourism businesses, local communities, and visitors. Broadly speaking, they reveal how ecosystem services are valued in certain countries. Public access and tourism concession are variables of extensibility and connectivity.

For independent variables, direct comparisons of ticket pricing, tourism concession pricing, or recreational revenue figures cannot yield convincing and in-depth findings. As well, there is no universal set of qualitative criteria to present all relevant variables regarding recreational revenues to enable National Parks to evaluate whether they are present or absent. Consequently, this research develops relevant descriptive variables based on the GSTC Destination Criteria (GSTC, n.d.), and highlights the concept of adaptive co-management (Leung et al., 2018), to explore the deficiencies of China's National Parks at this stage, and the lessons that can be learned through these comparisons. Pros and cons from the content being studied will be openly investigated.

National Parks in New Zealand and India are selected as comparative cases. New Zealand serves as a model of long history with over 120 years, representing a relatively mature and well-reputed National Park system. It is estimated that international tourism associated with National Parks alone has contributed 1.15 billion NZD (approximately five billion RMB) to New

Zealand's economy and employed nearly 12,000 people. These international visitors also tend to stay longer in New Zealand and spend more than those who do not visit National Parks (DoC, 2021). India shares a closer context in terms of geographical conditions (size of protected area), population size (potential visitor pressure), and Asian perspective with China. Since its first National Park in 1936, there are 106 existing National Parks in India, and another 75 proposed (WII, 2022). These two distinctive National Park systems can complement each other to make the comparison more comprehensive. The example of New Zealand mainly provides the experience of a solid management foundation for the early development of National Parks in China, while India mainly serves as an example in expanding the number of parks.

3.4 Material Interpretation and Reconstruction

The material of this research was mainly selected and collected from related journal articles of academic databases, government policies and documents, and news, reports, and publications of official websites by National Park authorities or other stakeholders. Through extensive reading, it provided a comprehensive understanding of the context to explore themes and cases. The availability of online information and data for National Parks varies from country to country, which also reflects part of the management outcomes. As the secondary data included are all from publicly available sources, without any human or animal subjects, ethical concern is not applicable to this research.

During the analysis phase, the material of National Parks in China, New Zealand, and India were grouped based on the GSTC Destination Criteria: Section A Sustainable Management, Section B Socio-economic Sustainability, Section C Cultural Sustainability (Section D Environmental Sustainability is not directly relevant to public access and tourism concession). In the meantime, focusing on the current key challenges of China's National Parks (legal framework, management structure, financial considerations, human-land relationships, and visitor management), recurrent variables that emerge from the content were derived and reconstructed for comparison. Lastly, effective practices of New Zealand and India were organised and applied back to the Chinese context to examine if they help with adaptive co-management and if they are applicable to National Park tourism in China (see Figure 7, excluded themes in lighter colour).

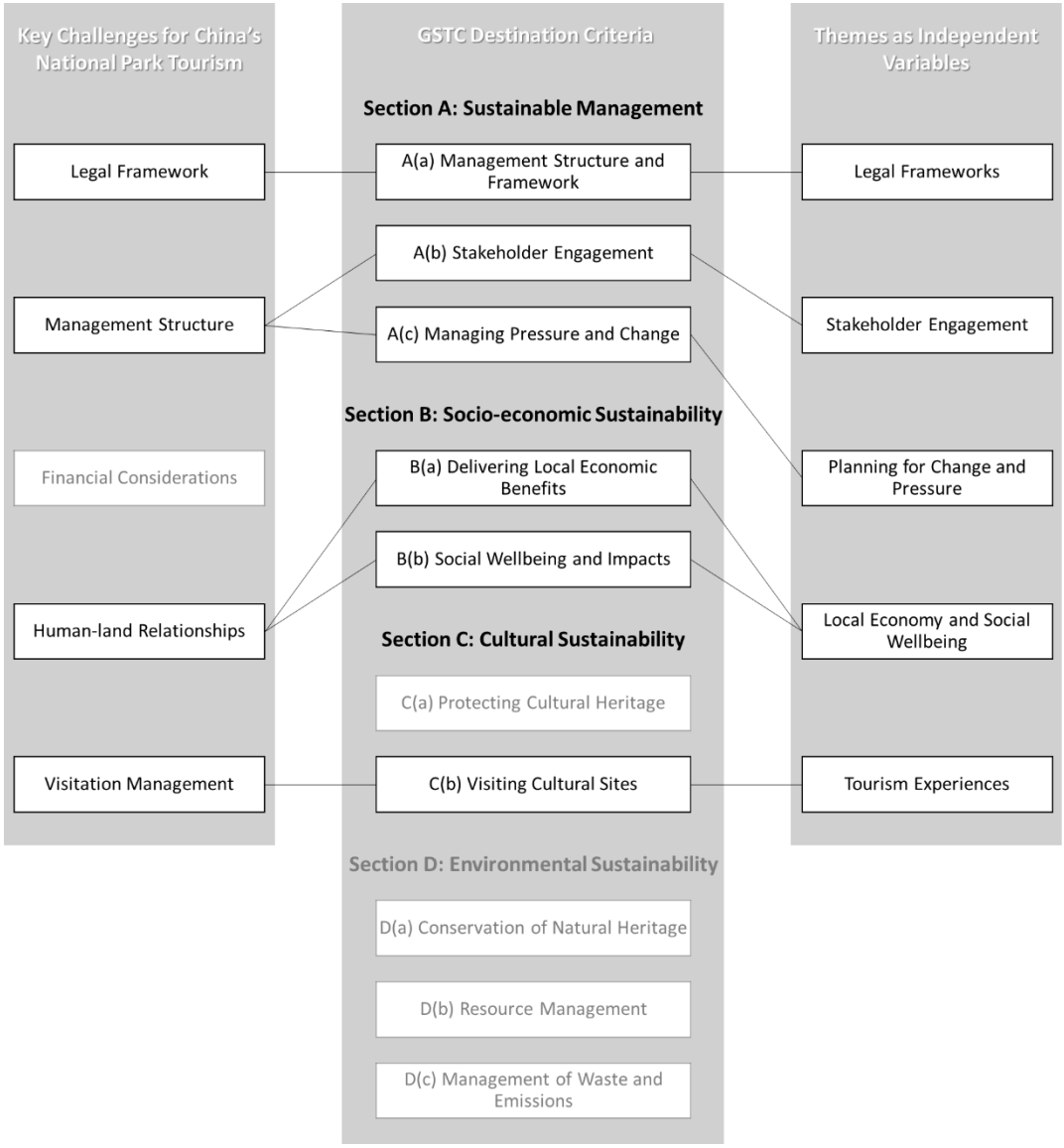

Figure 7. Analytical Process of Interpretation and Thematisation (by author).

3.5 Research Method Reflection

This qualitative exploratory research applies the comparative case study method and content analysis method. Thus, the common strengths of these methods also apply here: 1) in-depth empirical materials are collected; 2) evidence is grounded in the social setting being studied, enabling the past and the present context of cases to provide a historical insight; and 3) the research processes are non-intrusive (Jennings, 2010). Taking this perspective, it is possible to learn not only from the present tourism practices of National Parks in other countries but also from the whole development process. Additionally, different cultural contexts are well considered and reflected on to determine if these experiences are applicable to China, as this research takes China as the main subject in comparison rather than conducting even comparison.

On the other hand, the common disadvantages of the chosen research method also occur during the research process: 1) the research focus is emergent rather than being clearly stated at the outset; 2) the research process is subjective as opposed to objective, especially without member checking; 3) definitions of variables might be inconsistent across cases; 4) there is difficulty in checking the insider's perspective of texts; 5) findings are specific to a limited number of selected cases, and not able to be generalised to other cases; 6) iterative readings of content and reconstructions will produce different descriptive interpretations (Jennings, 2010). For example, it is difficult to illustrate why the selected cases of New Zealand and India are more comparable than others, and to scope and group variables because topics as large as environmental philosophy also tend to be reflected in policies on public access and tourism concession.

3.6 Conclusion

This research takes China's National Parks as major research objects, to compare with typical cases in New Zealand and India. Adopting the participatory paradigm and pragmatism paradigm, public access and tourism concession are selected as key dependent variables because they are of great importance for sustainable park development. Independent variables are developed from globally well-accepted National Park tourism management frameworks and criteria. Key learnings are generated through comparison based on the Chinese context and its National Park concepts.

4.0 Findings and Discussion

This chapter introduces fundamental information about National Parks in New Zealand and India. The overall financial conditions of the three National Park systems are briefly compared leading to an in-depth discussion about underlying managerial issues. Key lessons summarised for China's National Parks will be analysed in detail under five themes derived during content analysis: improving legal frameworks; fostering stakeholder engagement; long-term planning for change and pressure; supporting local economy and social wellbeing; and delivering valuable tourism experiences.

4.1 Overview of National Parks in New Zealand and India

The New Zealand National Park system aims to preserve in perpetuity for their intrinsic worth and for the beneficial use and enjoyment of the public, those parts of the country that "contain scenery of such distinctive quality, ecological systems, or natural features so beautiful, unique, or scientifically important that their preservation is in the national interest" (National Parks Act 1980). The Indian National Park system is for the purpose of protecting, propagating, or developing wildlife or environment in areas by reason of the "ecological, faunal, floral, geomorphological or zoological association or importance" (Wildlife (Protection) Act 1972).

Looking more closely at the number of existing National Parks in New Zealand (13) and India (106), New Zealand can provide a better example for China's National Parks in the early stage to build a solid foundation, while Indian cases can provide more clues for future scaling up. In terms of types of National Parks, New Zealand mainly covers mountain scenery, lowland forest, river system, and geological landforms (DoC, n.d.). While the distinguishing features of Indian National Parks are the focus on habitats of focal species, such as Bengal tiger (*Panthera tigris tigris*) and Indian rhinoceros (*Rhinoceros unicornis*), and the inclusion of various ecosystems, such as marine, desert, and wetland (Guidely, 2022) (see Figure 8).

In terms of a funding portfolio, these two National Park systems both mainly rely on government funding, the same as in China, which means recreational revenue takes a relatively small proportion. To say New Zealand represents the centralised model for National Park tourism management, India is structured almost opposingly. New Zealand conducts free access to all National Parks; while parks in India apply widely different pricing strategies, and online booking is not yet fully available through the official websites. In a similar way, New Zealand has a unitary pricing formula for National Park tourism concessionaires, composed of annual management fee, monitoring fee, and activity fees. Not all Indian National Parks follow the central government guidelines of Public Private Partnerships to regulate their concessionaires characterised in wildlife tourism or spiritual tourism. By researching the variables behind the

entry fees and concession fees of these National Parks, many processes can be followed, and many missteps can be avoided for National Parks in China (see Table 5).

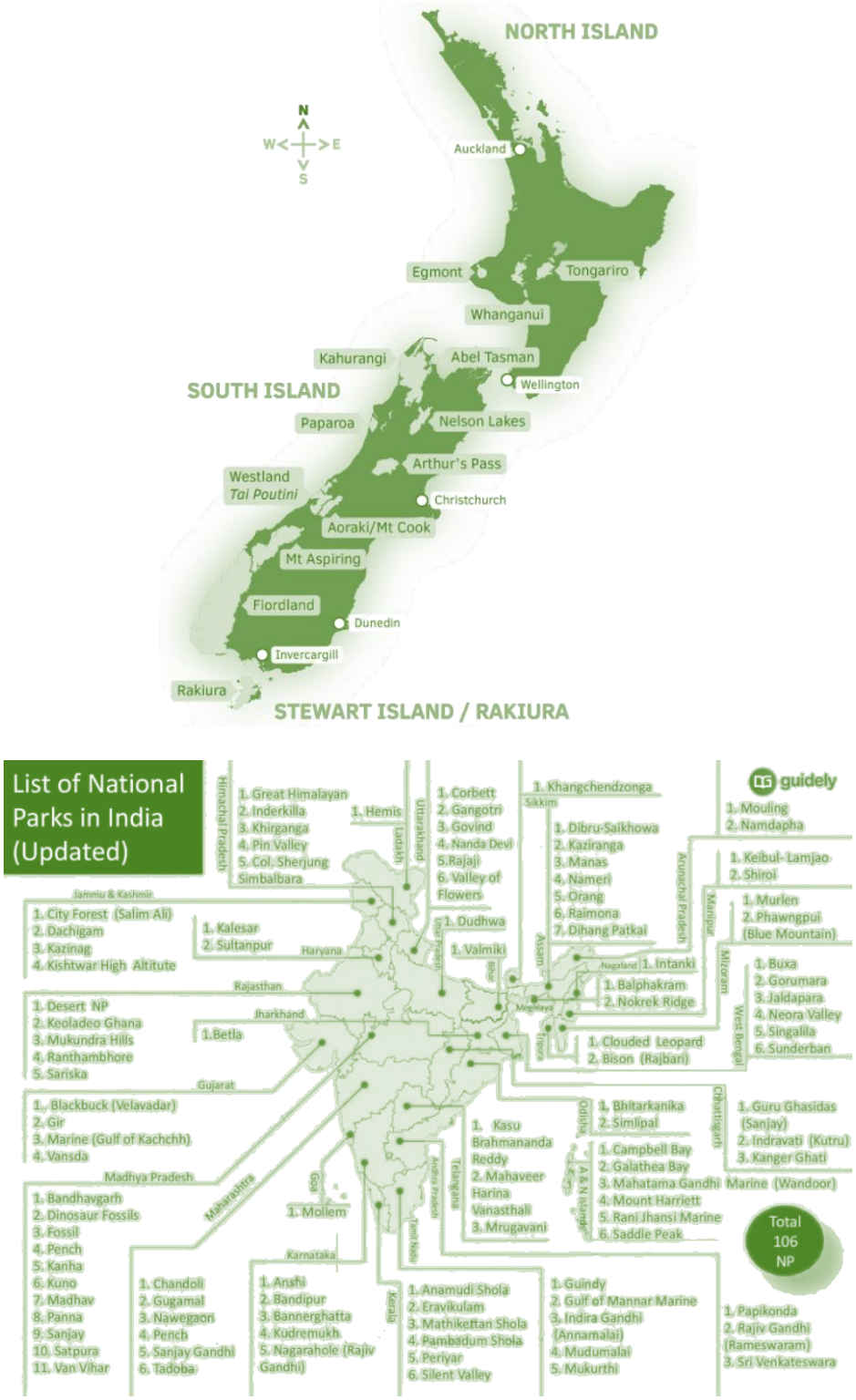

Figure 8. Above: National Parks in New Zealand on Map (DoC, n.d.);

Below: National Parks in India on Map (Guidely, 2022).

Table 5. Financial Conditions of National Park Systems (DoC, n.d.; Natural Resources Defense Council, 2020; World Bank, 2020; Forest Department, Government of Rajasthan, 2022; Corbett Tiger Reserve, 2022).

	China	**New Zealand**	**India**
National Parks	5	13	106
	Sanjiangyuan National Park, Wuyi Mountain National Park, Giant Panda National Park, Northeast China Tiger and Leopard National Park, and Hainan Tropical Rainforest National Park	Tongariro, Whanganui, Egmont, Abel Tasman, Kahurangi, Nelson Lakes, Paparoa, Arthur's Pass, Westland Tai Poutini, Aoraki/Mount Cook, Mount Aspiring, Fiordland, Rakiura	Jim Corbett National Park, Sundarban National Park, Kaziranga National Park, Khangchendzonga National Park, Keoladeo National Park, Nanda Devi and Valley of Flowers National Parks, Great Himalayan National Park Conservation Area, Manas National Park, etc.
Park area (km^2)	1,001-123,100	237-12,607	0.3-4,400
Funding	- Central government - Regional government - International organisation: e.g., Paulson Institute, WWF China	- Central government, regional government, ministerial funds - Community Fund, Nature Heritage Fund - Business and international organisation: e.g., Fonterra, Kiwibank, WWF New Zealand	- Central government: 100% for assistance non-recurring items, 50% assistance for recurring items - Regional government - International organisation: e.g., Global Environment Facility, WWF India
Entry fees	100 RMB per adult (1.9‰ of net national income per capita in 2020)	Free	Jim Corbett National Park: 100 INR (8.5 RMB) per domestic and South Asian Association for Regional Cooperation visitor, 250 INR (21 RMB) per vehicle; 450 INR (38 RMB) per foreign visitor, 500 INR (42 RMB) per vehicle Ranthambore National Park: 791 INR (67 RMB) per domestic canter permit, 1305 INR (110 RMB) per gypsy permit; 1860 INR (157 RMB) per foreign canter permit, 2374 INR (200 RMB) per gypsy permit (0.7-9.4‰ of net national income per capita in 2020)
Concession fees	- Waiver for pilot concessionaires - History contracts in operation	- Annual management fee (150-500 NZD) + monitoring fee + activity fees - Benchmark against what others are paying - Waiver during COVID-19	- Public Private Partnerships - Mrugavani National Park：upfront development fee & consultants fee + additional development premium + annual lease rentals (100 INR)
Tourism concession categories	Guiding, retail activities, transportation, accommodations, restaurants, and so forth	Accommodation and related facilities, skifield facilities, aerial cableways, powered aircraft, guiding, guiding tours, parking for commercial operators, retail activities, sporting events, watercraft activities, and so forth	Wildlife tourism, spiritual tourism, educational tourism, and so forth

4.2 Improving Legal Frameworks

New Zealand

A clear, well-developed hierarchical legal system is the cornerstone for National Park tourism management, covering a wide range of issues from strategic development objectives to the setting of entry fees. New Zealand National Parks are mainly guided by a legal system including National Parks Act 1980 and General Policy for National Parks 2005. Besides these overarching national level documents, the management plans for all 13 parks are available online, and their implementation should be reported at least annually. Because some of the plans are supposed to be renewed by now, according to the terms that each National Park is required to have a management plan "reviewed as a whole at not more than ten-year intervals", an overall renewal project for the plans is in progress (DoC, n.d.). In addition, as specific situations change, such as development priorities, market demand, and trend forecasts, the New Zealand National Park tourism policies are being supplemented and updated to make responses. For example, in the latest Heritage and Visitor Strategy 2021, "Protect, Connect and Thrive" is highlighted as the major goal for managing visits to public conservation lands and waters (DoC, 2021).

The free entry practice in New Zealand National Parks is underpinned by clarifying in the legal documents that "the public shall have freedom of entry and access to the parks" and "public access to national parks will be free of charge" (General Policy for National Parks 2005). Also, the requirement of authorisation for uses of National Parks, most frequently as a concession, is established. The policy framework for New Zealand protected area concession management is included as a positive example in the UNDP tourism concession report (Thompson et al., 2014; DoC, 2019). More importantly, General Policy for National Parks 2005 puts great emphasis and consideration on the interests of Indigenous people (tangata whenua) and full public participation based on mutual good faith, cooperation, and respect, which legally set the tone for adaptive co-management (DoC, 2019).

India

India does not yet have a specific law on National Parks as New Zealand does. Its Wildlife (Protection) Act 1972 regulates the definition of National Parks and the position of National Parks in its protected area system. Other legal regulations on National Parks can be found in many environmental and natural resource-related policies, such as The Biological Diversity Act 2002 and National Wildlife Action Plan (Liao et al., 2016; Natural Resources Defense Council, 2020). The management plans for individual parks do not appear to achieve nationwide consistency and alignment. The six of them, which are inscribed as UNESCO world heritage sites, have relatively complete periodic plans and reports (UNESCO World Heritage Centre, n.d.). Some of the other parks have developed their own plans, such as the Integrated Management Plan of the Gulf of Mannar Marine National Park and Biosphere Reserve 2018-

2027 (Tamil Nadu Forest Department and WII, 2018).

Many other research initiatives cover part of the work of a management plan, either for several parks or for one park, which makes the outcomes and results fragmented in various scopes and standards and lacking strategic integration and holistic consideration. For example, the economic valuation study project for selected tiger reserves, some of which are also National Parks, is prerequisite for developing the management plans (National Tiger Conservation Authority, n.d.). Likewise, Sanjay Gandhi National Park has a separate report for environmental carrying capacity, Keibul Lamjao National Park has finished the consultation for its management plan, and many National Parks have notifications for eco-sensitive zones published or drafted (MoEF, 2022). The large number of National Parks in India and the fragmented policies have made it difficult to achieve consistency and continuity in nationwide management, which can lead to less efficient and organised practices. This inconsistency is also found in park entry rules and tourism concession policies. For some less known parks, certain policies or plans may even be absent.

China

China is progressing with a separate set of centralised legislation for National Parks, as the recognition of the importance, uniqueness, richness, and complexity in these ecosystems. The National Park Act will be formally enacted, and the first five parks are following their current individual master plans until 2025, having the longer-term plans in preparation (see above in Table 3). As a next step, it is expected that the National Park legal framework can be continuously improved with practical sub-policies or measurements, and each park can develop its periodic management plan based on the assessment of the previous time cycle. In the establishment of more National Parks in China, it is pivotal to apply and test the policies, and leave adequate consideration on evaluation and planning phases, taking one solid step at a time, rather than seeking quantity blindly, so that it will benefit the following implementation phase. For public access and tourism concession, there are general policies that can be used as references (e.g., Opinions on Ticket Price of State-owned Scenic Areas for Reducing Prices in Key Scenic Areas; Terms for the Management of Infrastructure and Public Utility Concessions). However, there should be more explicit statements in terms of National Parks. For example, new infrastructure constructions by concessionaires need to be more carefully evaluated and meet higher environmental standards.

4.3 Fostering Stakeholder Engagement

In adaptive co-management for sustainable tourism, open and honest communication among stakeholders, no matter whether it is formal or informal, is key to increasing knowledge and enhancing partnerships (Leung et al., 2018). The management structure is designed to ensure

that formal communication flows smoothly and create opportunities for informal communication. On the power-sharing continuum among stakeholders of recreation and tourism partnerships in parks and protected areas, Eagles (2009) identified the seven most commonly used combinations amongst government agencies, profit-making companies, non-profit organisations, and communities. It is further analysed that the management models with non-profit public involvement are closer to the ideals of good governance than the models with for-profit private involvement. Moreover, financial effectiveness and equity may be the highest valued issues, yet they are the major weaknesses in actual government management in parks and protected areas, as financial supporters are always seen as critical stakeholders.

New Zealand

The management structure for National Parks in New Zealand is quite centralised and explicit (see Figure 9). The Department of Conservation (DoC) is responsible for the conservation of New Zealand's natural and cultural resources, according to Conservation Act 1987. Each park is managed by DoC office(s) and/or visitor centre. For example, Aoraki/Mount Cook National Park is under both DoC Mt Cook office and visitor centre, while Abel Tasman National Park is under DoC Nelson office and visitor centre, and two area offices located in Motueka and Takaka, whose managerial pressure comes from the condition that, although it is the smallest National Park in size, it has very high visitor numbers with its Coast Track being one of the most heavily used tramping tracks in the country (DoC, 2022a). In each decision-making process, taking the ongoing National Park management plan project as an example, it is noticed that Indigenous people (tangata whenua) and others associated with public conservation land and resources are consulted, and people can contribute through DoC website or public hearings (DoC, n.d.). In operation, DoC proactively works with the public and community groups to share knowledge, raise awareness, and practice co-management for National Parks through training and volunteer projects. Volunteers are recruited and organised either directly by DoC, such as being hut wardens in Westland National Park or Egmont National Park, or through community partnerships, like Friends of Cobb, Onekaka Biodiversity Group, and Abel Tasman Birdsong Trust (DoC, n.d.). These opportunities are also open for visitors who like in-depth engagement in National Parks. Volunteers account for around 5% of human resources in Tongariro National Park (DoC, 2012).

Due to the centralised management structure, the pricing of accommodation in National Parks (free entry) and concession fees is uniformly determined, regularly reviewed, and updated by DoC, available on its official website. The recommended activities and authorised tourism operators are also listed. Regarding a quite large number of tourism concessionaires and workload under DoC and its staff, this clear structure allows for more efficient communication (Thompson et al., 2014). What is worrying is the shortage of diverse funding origins from

stakeholders (e.g., 80% from the central government, 20% from commercial operators in Tongariro National Park), to cope with natural disasters, market downturns, political instability, or other external events (DoC, 2012; Thompson et al., 2014).

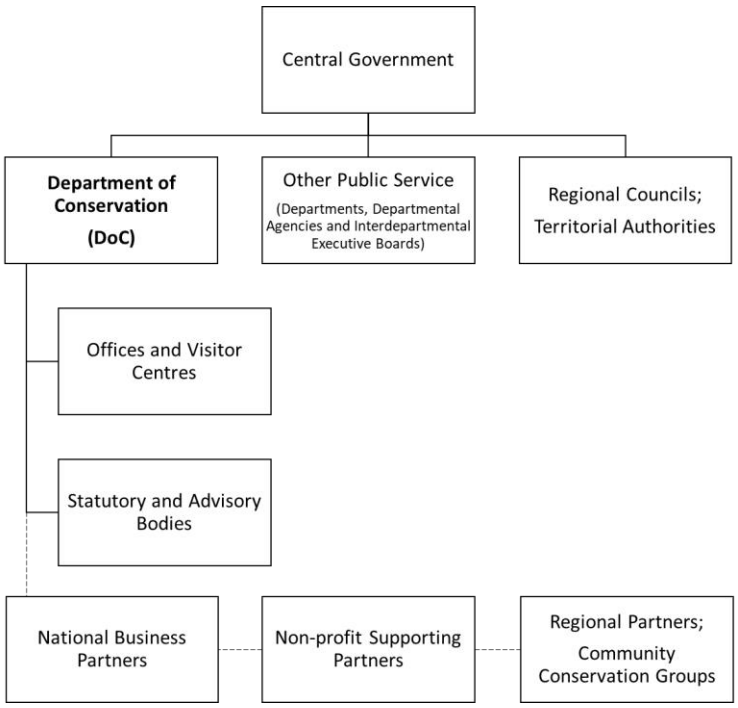

Figure 9. Management Structure for New Zealand National Parks (DoC, n.d.; Public Service Commission, n.d.).

India

There is no single authority for National Park management in India (see Figure 10). National Parks in each state are run by the state government. The central Ministry of Environment, Forest and Climate Change (MoEF) takes charge of the 11 National Parks in three union territories. MoEF is responsible for country-level policy development and implementation. This state-led structure causes few parks to have cross-state co-management capacity (e.g., Pench National Park across Madhya Pradesh and Maharashtra). Most parks divided by state borders have different names for each division (Sanjay National Park in Madhya Pradesh & Guru Ghasidas National Park in Chhattisgarh; Bandipur National Park in Karnataka & Mudumalai National Park in Tamil Nadu). Another notable feature of this management structure is that it is highly project-orientated. There are separate divisions under MoEF for projects like Project Elephant and Biodiversity Conservation and Rural Livelihood Improvement Project, which look at specific priorities within or around National Parks. Lacking all-inclusive coordination across divisions can easily lead to inefficiencies, conflicts, or oversights (Liao et al., 2016; MoEF,

2022).

On the other hand, the advantages of MoEF in climate change issues brings a richer perspective into National Park management, as they are highly impacted and sensitive areas, also highly valued with regards to the functions of carbon storage and sequestration (MoEF, 2022; National Tiger Conservation Authority, n.d.). As a result of this management structure, state governments set their own National Park recreational pricings, the information of which is decentralised without an integrated site for the interested public to access.

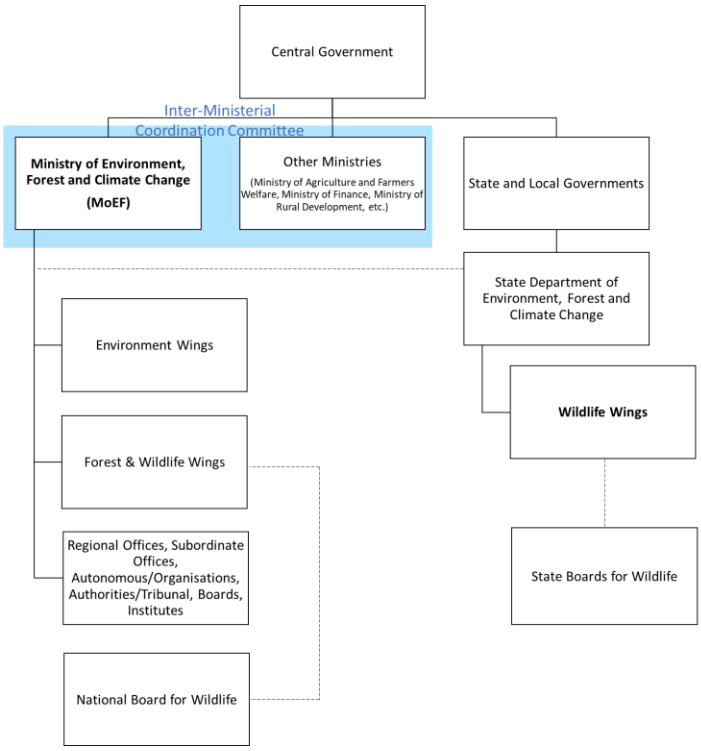

Figure 10. Management Structure for Indian National Parks (Natural Resources Defense Council, 2020; MoEF, 2022).

China

China's National Parks face a similar power-sharing problem between central and regional governance (see above in Figure 6). Under the current management structure, at the park level, each National Park has its own integrated authority, including those cross-provincial parks. What can be strengthened is the coordination mechanisms between National Park Administration and provincial governments to offer adequate reference and support, including in the entry and concession criteria, to avoid conflicting or random decisions, especially when the number of National Parks is growing. Moreover, it is also an important means of communication with stakeholders for National Park Administration to consolidate, publish and report on the working progress, keep open to public feedback (even with independent audits, as New Zealand and India do), including financial data (DoC, 2022a; MoEF, 2022), where there is

still much room for improvement. Bringing public participation into National Park early decision-making processes, and enabling stakeholders to have a balanced say can help build collective attachment and recognition (Zhang et al., 2021).

4.4 Long-term Planning for Change and Pressure

Dependent on the above legal framework and management structure, National Parks not only need to conduct daily operations and monitoring, but also have the possibility to achieve long-term value enhancement and challenge response. For National Park tourism, brand building and market forecasting are common practices. Research by the University of Michigan in 2011 revealed that the government's investment in the US National Parks could bring about four times the economic return; especially tours in National Parks offered as a series can provide the opportunity for accruing benefits over time and to a far greater extent than a single tour, which strives for visitor loyalty and increased visitation. (Wolf et al., 2015; Morris, 2019; Yang et al., 2019).

New Zealand

Great Walks are a highly reputed tour series in New Zealand, of which nine out of the ten are located in National Park areas (except for Lake Waikaremoana Track). Originally created 30 years ago to direct visitors and reduce the impact on wilderness, Great Walks have become a crucial part of the official tourism offerings in National Parks, with strong domestic and international appeal (see Figure 11). Fees are charged for huts and/or campsites provided by DoC along all Great Walks. Over the past ten years, one million visitors have experienced a Great Walk; in 2018/19, more than nine million NZD (40.5 million RMB) was generated for DoC from Great Walks products and services; and more than 10% of the international visitors surveyed said they had done a Great Walk. What is more, tourism services around Great Walks by local concessionaires and operators, such as guides, accommodations, and transportation, help nearby communities thrive (DoC, 2022b). With the branding success and increasing popularity of Great Walks, it is under assessment and debate about whether to upgrade more tracks into the Great Walks family (Hump Ridge Track in Fiordland National Park will become the 11th Great Walk in 2023/24.), whether they are over-facilitated at the cost of authentic nature experience, how to spread the visitation load using tools like booking systems, and pricing (Fagan & Kearns, 2017; DoC, 2022b).

Figure 11. Heaphy Track in Kahurangi National Park Celebrating 30 Years of Great Walks (DoC, n.d.).

Based on the insights from a wide range of surveys, interviews, and consultations on macro visitor trends, DoC sets out its priorities for long-term investment in National Parks and the steps to get there. For example, with the increasing demand for short walks and day hikes, DoC has worked to understand the potential drivers behind visitors' behaviours, and to find out how to encourage and empower "giving back" through facilitated experiences and designed services in National Parks in a more limited time. In response to global drivers such as COVID-19 or climate change, DoC has conducted multiple studies and projects to identify how to respond toward resilience and sustainability, and a transforming relationship between humans and nature (Miller et al., 2014; DoC, 2022b). Meanwhile, it is not without criticism and concern that DoC's long-accepted mandate for sustainable management may be compromised by a political drive for more commercial and short-term economic management. A lack of desire to re-imagine National Park tourism beforehand and being busy handling immediate issues (e.g., funding shortage, visitation decline) can cause a loss of opportunities and advantages (Mitchell et al., 2013; Daugherty & Towns, 2019; Yeoman et al., 2022).

India

Although there is no such impressive tourism branding for Indian National Parks as Great Walks, their strength lies in the spatial spreading and wide diversity of the parks (only six in 36 states and territories do not have National Parks). The National Parks can be marketed as must-visit attractions in each state or arranged under different tour themes. Ecotourism and spiritual tourism are two of the main tour themes in National Parks. The national strategic initiatives concerning National Park tourism include Guidelines for Sustainable Ecotourism in Forest and Wildlife Areas 2021 and Iconic Tourist Sites Development Project (Kaziranga National Park). It is also a major challenge for most Indian protected areas to find the balance between tourism revenue and its negative implications on wildlife and ecosystems (National Tiger Conservation Authority, n.d.; MoEF, 2022; Ministry of Tourism, 2022). From a broader perspective, as India already has a few successful conservation initiatives for cross-country National Parks (e.g., Manas National Park with Bhutan; Kaziranga National Park with Myanmar), there is a

possibility to highlight cross-country tours through these parks (IUCN, 2019; IUCN, 2020).

China

It is stated in China's National Park policies that there should be a unified brand logo and individual logos for each park. Specification for a National Park symbol system is also published (National Forestry and Grassland Administration, 2021; National Forestry and Grassland Administration, 2022a). These documents put emphasis on building and protecting the brand image and intellectual property of National Parks. It is also expected that an official tourism series to explore National Parks will be put into planning soon. In the longer term, it is necessary to foresee the potential pressure and change for National Park tourism. The challenge of spatial distribution will multiply in the process of establishing more parks. Other external drivers identified such as emerging recreational demand, global crises, and estimated impacts of temperature on visitation under climate change scenarios (visitation increases as temperature increases, but decreases sharply with temperatures above 25C), are all highly possible future challenges for China's National Park tourism; they all call for early assessment and preparation (Walls, 2022). These long-term plans help secure and enhance the overall value for the National Park system in China, which in turn affects recreational pricing.

4.5 Supporting Local Economy and Social Wellbeing

Through long-term interaction with the land and natural resources, local communities and their livelihoods have become organic components of the National Park ecosystems. They have rich traditional knowledge, skills, customs, and cultures, therefore local wellbeing underpins tourism development (He, 2019). Building capacity in local communities to engage in, and benefit from, tourism centred on the protected area requires an understanding of what a community entails, including its boundaries and the rights-holder and stakeholder groups it recognises, activities important to local livelihoods, along with any factors that may hinder collaboration among them (Leung et al., 2018).

Both New Zealand and India aim to nationalise all lands set aside for National Parks and relocate traditional residents from them, primarily through approaches like government acquisition. Local communities within parks often have varying concerns, but they are in a disadvantaged position when negotiating with the government and the grievances and conflicts that may occur. This problem appears to be more complex in India due to the large population. Land acquisition is far from a one-off solution. Financial compensation alone is also unsustainable, laying a significant burden on governmental investment. The interests of local communities are both the cause and the resolution of some National Park issues such as land ownership, boundary control, traditional livelihoods, alternative livelihoods, and human-animal conflict (see Table 6).

Table 6. Social Contexts of National Parks (DoC, 2019; Natural Resources Defense Council, 2020; National Tiger Conservation Authority, n.d.).

	China	**New Zealand**	**India**
Land ownership	Partially state-owned, transfer remaining communal-owned assets to state-owned assets	State-owned, Crown land	State-owned
Local population	Hundreds of thousands	Theoretically no settlements, except for relevant Treaty claims settlements	Around four million in protected areas Ranthambore National Park: 8,000 households inside the core area Sundarban National Park: approximately 270,000 people live in the 46 surrounding fringe villages Periyar National Park: approximately 250,000 people live in and around
Major social issues	Land ownership, boundary control, traditional livelihoods, alternative livelihoods, human-animal conflict	Land ownership, boundary control	Land ownership, boundary control, traditional livelihoods, alternative livelihoods, human-animal conflict, tourism leakage

New Zealand

According to National Parks Act 1980 and General Policy for National Parks 2005, New Zealand National Parks are managed to give effect to the principles of the Treaty of Waitangi. Land can be acquired by equal contracts for National Parks, and the principles are applied depending on the circumstances of each case, including the significance of the land, or resource (taonga), to Indigenous people (tangata whenua). For example, topics like whether customary use of traditional materials and Indigenous species may be allowed in National Parks will go through careful consultation and informed decision-making. Historically, the land purchase was a common way for National Park establishment or extension but this limited local settlement. For instance, Stewart Island was purchased by the Crown agents from Rakiura Māori in 1864, where Rakiura National Park was later established in 2002 (DoC, n.d.).

Such tactics do not always work, as some local communities may seek stronger autonomy and self-management. The former Te Urewera National Park was disestablished in 2014 to be recognised as a legal entity (legal personhood) under the Treaty of Waitangi settlement and freehold land with the effort of Tūhoe, the Indigenous Māori people of the region for an enhancement of local identity, inclusive management, and community wellbeing (Bataille et al.,

2020). Another significant and community-related management pressure comes from boundary control. The principles of parks to be maintained in a natural state, as well as the public having the right of entry (National Parks Act 1980) (free entry in practice), place greater demands on zoning, such as customary use zones, general visitation zones, concession activity zones, and temporary closed zones for recovery (Ferretti-Gallon et al., 2021). Free entry may cause an increased potential for hazard, parking, traffic control issues, and disability support. It is observed that signs and information in the park are not strong enough to make visitors read and follow (DoC, 2012).

India

Because Indian National Parks land is fully state-owned by law; since the early 1970s, the government has started to introduce voluntary resettlement and rehabilitation to local communities, which was also a commonly adopted model of resident removal from the US, negotiating in exchange for selected relocation sites, alternative livelihood plans, and one million INR (83,000 RMB) subsidy per adult. In 1991, Ecodevelopment Committees were set up in communities within eight kilometres of National Park boundaries to conduct Ecodevelopment Plan. At least 100,000 people have been relocated up until 2008. Tourism in and around National Parks, is a highly preferred alternative livelihood. However, implementation outcomes vary (Frost & Hall, 2012; Natural Resources Defense Council, 2020; Zhang et al., 2021). In some instances, local dwelling communities were ruthlessly evicted, with inadequate compensation and little consultation, so that the park could be cleared or extended. In an extreme example in Kaziranga National Park, a UNESCO world heritage site, two people from the fringe village died from the chaotic eviction for park expansion in 2016. Their traditional livelihoods within the park, namely fishing and firewood harvesting, are forbidden; their crops, livestock, and properties are constantly damaged by wildlife, with few alternative livelihood choices, skill training, and compensations offered by the park authority. Even some community-based tourism services have to compete with official lodging and safari activities. What makes it worse is the high tourism leakage rate and uneven revenue distribution.

Research has found that although most local people are willing to support Kaziranga National Park conservation, they feel disappointed and neglected by the park authority (Hussain et al., 2012; Das, 2017; Hazarika & Kalita, 2019). National Parks in the Himalayan region have managed social transformation more harmoniously concerning tourism impacts for sustainability (e.g., Hemis National Park; Valley of Flower National Park; Nanda Devi National Park; Khangchendzonga National Park). The stakeholders work in closer coordination with each other. Local communities can stay in, or access, the parks if they want for defined resources or religious purposes (e.g., agriculture, medicinal plants, pastoralism). Alternative livelihood plans are created for the communities, building up their competencies for tourism services. Tourism

revenue is more fairly allocated, some flowing to the village fund. Although these parks face various problems from over-tourism to under-tourism (200,000 annual visits in Corbett National Park versus 100 annual visits in Nanda Devi National Park), it is commonly found that traditional local institutions involving the poor and women may have the best capacity to ensure sustainable tourism; their voices are especially weak at the early planning stage and in higher profitable categories. A good working example of this is an all-women self-help group comprising women from interior villages near Manas National Park, supported by Aaranyak. a local NGO (Badola et al., 2018; Singh et al., 2021; Aaranyak, n.d.).

China

For National Park tourism in China, there are also complex issues about local communities that have yet to be clarified and resolved (see Table 6). Firstly, a mindset that local communities and their traditional livelihoods can benefit tourism development and have the competencies to play to these strengths should be instilled in park authorities from the start, as well as the attitude that expert knowledge and general rules are not superior to situated, experience-based local views (Haukeland et al., 2011; Stokke & Haukeland, 2018). What is often overlooked is that the additional time spent during the public involvement process may save far greater amounts of time during the implementation of the project or plan (Force et al., 2002). As a result, early tasks such as clarifying resource ownership, designing access restrictions, and regulating tourism concession categories, could be prioritised to be done as completely and clearly as possible. For example, attention should be paid to detailed zoning, utilising all signages, information boards, and marks in area level, and track level, for visitor guidance by different types (Gundersen et al., 2015).

On the other hand, during implementation and operation, enough flexibility and inclusiveness are needed for exceptional cases and creative ideas as it is the National Park ecosystem that ultimately informs people what to do. For instance, soft boundary control for local access, freedom for community-level decision making, and involvement of local presentation and interpretation for authentic experiences are proven practices (Frost & Hall, 2012; Shan Shui Conservation Centre, 2022). In the case of Sanjiangyuan National Park, the Nature Watch project in Valley of the Cats (Angsai town, southeast of the Lancang subarea), started in 2018 and was awarded the first pilot tourism concessionaire in the park in 2019 with a fee waiver. The project is created and run by an elected community management team, Angsai Cooperative, with support from the local government, park authority, and an NGO called Shan Shui Conservation Centre. Local herders and caterpillar fungus collectors, mainly Tibetans, offer all-inclusive tours for a minimum of four days and three nights to visitors (starting from 1,900 RMB per person) in their low working season (half a year), including services like guided wildlife tracing (especially for snow leopards), guided trekking, Tibetan lifestyle experiences,

and homestays.

For the project income, in total 1.7 million until 2021, 45% goes to host families; 45% goes to the community development fund; and 10% goes to a newly established human-wildlife conflict fund. Tourism income accounts for approximately 10% of the host families' total income, and families take turns at hosting to maintain a relatively balanced distribution. Higher tracing success for visitors, together with the compensation for human-wildlife conflicts and the population growth of snow leopard positively change people's view towards these focal species. Local people are also more willing to learn about and participate in park monitoring and ranging, and to share their culture and belief with visitors. Now this community-based model is being introduced to other communities and parks (Wang, 2019; Shan Shui Conservation Centre, 2022; Shan Shui Conservation Centre, n.d.).

4.6 Delivering Valuable Tourism Experiences

The debate about recreation-user fees on public lands, such as National Parks, is often between the "public good" view and the "user pays" view. Imposing recreational fees is considered double taxation, while it may be a better solution compared to an overall tax increase. Whether through taxes, entry fees, or recreational fees charged by tourism concessionaires, the value of National Parks will be transmitted to its end consumers. It is worth looking at how pricing can be used as a positive mechanism for valuable tourism experiences, so that the payers are aware that they are "shareholders" of National Parks and can be proactive stakeholders in park management (Ostergren et al., 2005; Chen & Zhang, 2018; Zou, 2020; Zou et al, 2021).

New Zealand

Public access to New Zealand National Parks is free of charge; charges may be made for the use of accommodation, facilities, and services (General Policy for National Parks 2005). The pricing for Great Walks huts and campsites differs according to the season (summer/non-summer), visitors' origin (international/New Zealand resident), and age group (adult/youth), which is intended to encourage low season volume and prioritise taxpayers (DoC, n.d.). Tourism concessionaires are also committed to integrating the uniqueness of National Parks into their itineraries, which cannot practicably be experienced elsewhere. Some highlight immersive transportation with local guides to their personal favourite stops, like paddling, sailing, skiing, biking, and hiking (e.g., Unique Whanganui River Experience; Abel Tasman Sailing Adventures; Kahu Kayaks; Aspiring Guides); some others present their zero-carbon practices and their contribution to local conservation projects along the tour (e.g., Kahurangi Guided Walks, Ruggedy Range, Glacier Valley Eco Tours); or put emphasis on cultural interpretations and professional educational knowledge (e.g., Waka Abel Tasman, Fiordland Expeditions, Wrybill Birding Tours).

For these long-term established local tourism concessionaires, the profits and reputation come from high-quality products and services, and when partially invested in the conservation of National Parks, will in turn lead to further enhancement of resource values and their businesses, and bring overall benefits. However, there is concern about DoC's neo-liberal management approach, including its preference for increasing tourism volume and concession numbers, rather than introducing entry fees or other economic instruments, its demand-driven approach, and its weak restriction and requirement in concession agreements, which add potential risks for mass tourism in National Parks (Dinica, 2017).

India

Because many Indian National Parks are also tiger reserves, a half-day or full-day safari tour in a gypsy or canter (gypsy: a small vehicle for maximum six guests, less disturbing to wildlife; canter: an open-top bus for 10-20 people) is the standard access way, so that it is therefore restricted to start at the designated gate and go through the designated zone. The pricing for safaris usually differs according to visitors' origin (foreign/domestic), and vehicle (gypsy/canter) (see above in Table 5). Some parks are closed in certain months of the year mainly due to monsoon season, and they vary considerably in terms of visitor numbers as a result of different access restriction levels. Other tourism services in National Parks include river rafting, mountain biking, nature walks, village visits, accommodations in and around the park (guesthouses, lodges, resorts), and tour packages. Because there is minimal availability of tourism concession documents and variations from state to state, it is not clarified whether each tourism service is provided by park authorities or concessionaires (Wyman et al., 2011; Natural Resources Defense Council, 2020; Sharath, 2022). For example, Jungle Lodges & Resorts is a tourism business with Karnataka state government involvement, promoting eco-tourism and non-consumptive outdoor activities in National Parks.

On the other hand, some tourism concessionaires are running creative activities and giving back to local wellbeing. A Project Tiger Expedition by a cross-national concessionaire named &Beyond invites wildlife scientists and conservation specialists to guide the journey through three iconic National Parks and donates revenue to the Tiger Watch initiative, to celebrate in honour of 50 years of tiger conservation in India; Last Wilderness Foundation organises cultural tours to local tribal villages in Kanha National Park to help with their alternative livelihoods; SkyWaltz offers a special aerial view of Bandhavgarh National Park with its hot air balloon safaris. However, it is undeniable that irresponsible tour practices like unlicensed hunting and elephant riding still exist.

China

The public tourist attractions in China have long conducted the "user pays" approach, whose ticket prices have been complained about as too high, including those scenic areas before they

became National Parks. This is seen as contradicting the key mandate of "public good for all" for National Parks, which are asked to strengthen their profile as a public service. If it is agreed that it is more cost-effective to keep the "user pays" approach for National Park tourism, the key question becomes how to set fair prices and how to reassure visitors that tour offerings match the prices (Lee & Han, 2002; Herath & Kennedy, 2004; Zhang et al., 2019; Zou et al., 2021). In practical terms, testing visitor willingness to pay for fees and tourism concessionaires is recommended; this is yet to be done for current National Parks. It is suggested that, through providing greater information dissemination and transparency, users' willingness to pay can be increased when they are aware of how fees impact conservation (Walpole et al., 2001; Ostergren et al., 2005; Xing & Hao, 2016; Leung et al., 2018; Zou, 2020).

The average entry fee for current National Parks in China is around 100 RMB per adult, equivalent to 1.9‰ of net national income per capita in 2020 (see above in Table 5), which is several times higher than in other countries (Chen & Zhang, 2018; Yuan & Peng, 2019). Even though research based on the willingness-to-pay methods of other countries for National Park entry fees often reveals that they are under-priced (Walpole et al., 2001; Zou et al., 2021; Walls, 2022), the situation is almost the opposite in China. While entry fees can be varied on a park-by-park basis, it is possible to set nationwide variables or tiers such as profile differences or seasonal differences to at least reduce part of the price (Chen & Zhang, 2018; Deng, 2019). Alternatively, a National Park pass can be a viable way to encourage multiple visits. In addition, entry fees can be used as economic instruments for maximum equilibrium of supply and demand, which is more effective when reducing prices to attract visitors than when raising prices to limit visitors (Walpole et al., 2001; Xing & Hao, 2016; Zou & Li, 2021; Zou et al., 2021). It may even evolve to dynamic pricing where costs change in real time like air ticket pricing (Dichter & Manzo, 2017).

Compulsory all-inclusive pricing is not recommended for National Parks. Besides entry fees, visitors should be free to choose whether to consume secondary spending offered by tourism concessionaires (Zou & Li, 2021; Zou et al., 2021). Since tourism concession stands closer to the market, and concession fees can be eventually charged to visitors by concessionaires, a moderate degree of competition can be introduced into the National Park concession phases (see above in Table 2). For example, public tender based on financial, environmental, and social criteria, contract amendment based on monitoring outcomes, and incentives based on visitor feedback, can drive a shift in supply side from mass tourism to responsible tourism and sustainable tourism (Wyman et al., 2011; Chen & Zhang, 2019; Yuan & Peng, 2019; Zhang, 2019). Highlighting the uniqueness of each park in tourism products, even challenging visitors a little physically or mentally, helps them have peak memories and valuable experiences (Zeng et al., 2022). Some major issues for China's current National Park concession contracts include:

several low-quality contracts that are still in operation, like unnecessary shuttle buses or poorly made souvenirs; the experiences and data from small-scale new pilot tourism projects have not been fully shared; and the lack of external tourism businesses willing to grow with National Parks and make long-term investments in ecosystem conservation and community regeneration, especially in the context of policy uncertainty. A good example is the ecotours in the Lancang subarea of Sanjiangyuan National Park designed by Yunjoy Nature. Visitors guided by local people will be asked to finish pre-trip learning and tests, be involved in ranger work, receive a certification of completion, and be asked for feedback. Each of these itineraries takes three to five years of assessment and refinement. In addition, 50% of the revenue will be given back to the local communities (Cou, 2022; Shan Shui Conservation Centre, 2022). Although pilot concessionaires like Yunjoy Nature take advantage of fee waivers, their revenue performance can be an important reference for setting concession fees.

4.7 Conclusion

After comparing the cases of National Parks in New Zealand and India under the five themes related to recreational revenue, the current shortcomings in China have become clearer and potential improvements have been revealed for the purpose of establishing adaptive co-management and building China's National Parks into world-class and sustainable destinations. The following chapter will synthesise the findings and offer implications from this research, along with limitations and future research opportunities.

5.0 Conclusion

By comparing and discussing the National Park cases in New Zealand and India, many common concerns and challenges emerge. It is inspirational to learn not only from their current management practices, but also from their changes through the past. It becomes increasingly clear that National Park tourism is a systemic topic and that it is difficult to discuss separately about public access and tourism concession, or even about general financial issues, as they are all embedded in each other. Overall, tourism can be a key element in generating support for the conservation of National Parks, creating minimum negative impacts and maximum benefits.

For China's National Parks, recreational revenue may play more of a role as a regulatory instrument rather than just as a funding resource to achieve concepts of ecological conservation first, national representation, and public good for all. It is a crucial element in the adaptive co-management process and can also engage more stakeholders. To make the best of recreational revenue policies, the key findings for China's National Parks are summarised as follows. A revisit to the research question, overall conclusions and implications, and reflection remarks follow after.

5.1 Key Findings

1) Building a complete and consistent hierarchical legal framework is one of the top priorities for China's National Parks and protected areas, from national laws to park-level management plans, to detailed guidelines, codes of conduct, standard operating procedures, and check sheets. Restrictive policies are necessary, and motivational policies to encourage those who have been with National Park development from the beginning.

2) A centralised management structure is needed in this early stage to collaborate among stakeholders. While responsibilities for central and regional governance, and authorities of all levels, should be clarified, what is more important is the collaboration mechanisms to involve more stakeholders, especially marginalised groups, in consultation and decision-making.

3) Creating a high-quality tourism series or brand can add value to China's National Parks. This reputation needs to be built and shared by all parks. In the long term, growth in the number of National Parks calls for early assessment and preparation to cope with future uncertainty and complexity.

4) The large resident population inside and around China's National Parks requires extra support for capacity building and alternative livelihoods. Wellbeing of each community and each family should be considered case by case with adequate empathy and flexibility. Confident local guides presenting their authentic lifestyles is what makes National Park tourism unique.

5) Gradually phasing out the current unqualified tourism offerings, entry fees and concession fees for National Parks need to be set based on users' willingness to pay. It is worth looking at how pricing can be used as a positive mechanism for valuable tourism experiences, so that the payers are aware they are "shareholders" and can be proactive stakeholders in National Park management. Besides pricing, other tourism rationing mechanisms can be combined to encourage knowledge learning or skill contribution.

5.2 Research Aim and Objective Revisited

This research aims to answer the research question of how recreational revenue can better support and balance the concepts of China's National Parks: to achieve ecological conservation, national representation, and public good for all. The main research objective is to identify the current shortcomings and to explore ways to improve National Park tourism in China.

Looking into existing policies on public access and tourism concession, it has been found that the current deficiencies mainly lie in legal frameworks, management structure, long-term planning, local livelihoods, and tourism products. Learning from National Park tourism practices in New Zealand and India, it would be effective for China's National Park decision-makers to follow the process of adaptive co-management, working to improve current legal frameworks, foster stakeholder engagement, plan for long-term challenges, support the local economy and wellbeing, and deliver valuable tourism experiences. Recreational revenue can play more of a role as a regulatory instrument in the National Parks overall ecosystem service value flow, to maximise benefits and minimise negative impacts.

5.3 Practical Implications

Several feasible policy recommendations can be derived from this research for China's National Park tourism development.

About public access:

1) adjust entry pricing based on results of users' willingness to pay;

2) standardise pricing categories to spread visitation pressure over time and space, and prioritise customary access and marginal groups;

3) introduce a National Park pass.

About tourism concessions:

1) gradually phase out the unqualified tourism concessionaires;

2) widely share the data and experiences from the pilot concessionaires, and support more

intentional concession candidates;

3) offer fee waivers to encourage projects like community businesses or innovative start-ups based on steady and transparent policies.

5.4 Limitations and Future Research

There are several limitations to contemplate throughout this research. A key limitation is that the comparison is only among National Parks in New Zealand and India, due to time and knowledge restrictions. The comparison can be extended to other well-developed National Park systems, like the US, Canada, Norway, urban National Parks in European countries, or China's other neighbouring countries.

Additionally, although entry fees and concession fees are major components of National Park recreational revenue, they account for a small portion of the overall funding. Due to the general shortfall in government funding, it is worth discovering more options to build diversified funding portfolios for National Parks against financial vulnerability (e.g., green lottery, carbon market).

Finally, this research is mainly based on secondary material from the policy side and tourism supply side. It would be valuable to involve opinions from the demand side for future research, to find out what experiences are expected by National Park visitors. As mentioned earlier, large-scale quantitative research for the purposes of such aspects as willingness to pay or visitor preferences is also necessary.

5.5 Personal Reflection and Concluding Remarks

When I chose the research subject of National Park tourism, I did not anticipate that it would be such a complex issue. Intrinsically, it can be linked to environmental philosophy; in practical terms, every policy detail needs to be carefully designed. But it is also because there is no standard model for National Park tourism yet, and many countries are actively exploring this, that the topic is so challenging and inspiring. Throughout the research process, I have followed the full academic procedure, practised the research methods and, more importantly, improved my critical thinking as I continued to question and reflect. I look forward to more people knowing about and visiting China's National Parks in the near future, including myself, so that we can all enjoy in person the richness of these unique settings.

By the end of 2022, another 44 candidate areas in China have been brought up to the National Park schedule, including marine parks. When fully established, covering a total area of about 1.1 million square kilometre, it will be the largest National Park system in the world (National

Forestry and Grassland Administration, 2022e).

As more National Parks are under planning in China, there are likely more challenges ahead. Looking ahead, there are some critical issues identified for National Park tourism development, namely population growth and increasing consumption, urbanisation, and climate change, which would require extra reflection, re-prioritisation, adaptation, and creativity in navigation (Leung et al., 2018; Smith et al., 2021). As tourism recovery from COVID-19 accelerates, it cannot continue along the same, pre-pandemic path. World Tourism Organization has stated 2022 as the year to rethink tourism, toward a vision of being greener, smarter, and more inclusive (UNWTO, 2022).

Sustainable National Park tourism, in China and worldwide, is both a process and a goal, something experimental to be worked through and toward; this would require long-term determination and commitment. As the project vision of Valley of the Cats says (Shan Shui Conservation Centre, n.d.),

> "We want to discuss and improve with the community step by step to see how to adjust to the maximum extent with the market based on the attitude and willingness of the community. In general, we hope to find a balance between the main body of community and the will of visitors, traditional preservation and modern services, individual herders and community collectives, as well as equity and efficiency. We are also making observations and recordings as we go.
>
> Here, we spend a lot of time discussing with the community because we want to see the value of collective action rather than to break the structure of the community through marketisation. If a community can keep some distance from the outside, it will adapt better to policies and find the most suitable way to cope with them."

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