Social Impacts of Establishing Protected Areas: Evidence from Giant Panda National Park, China

Yuqi Zhang

University of Groningen, PhD student

Netherlands

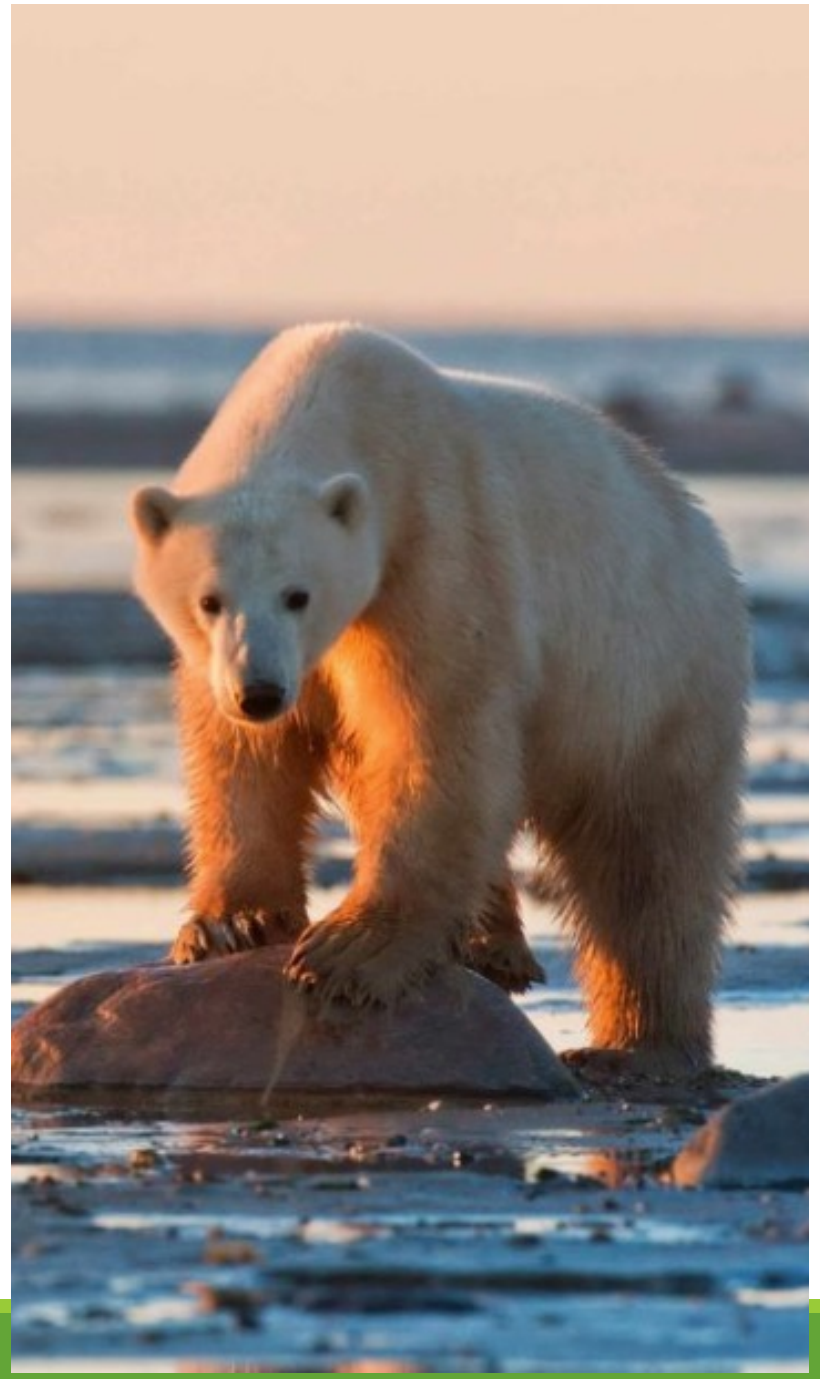
yuqi.zhang@rug.nl

Yuqi Zhang

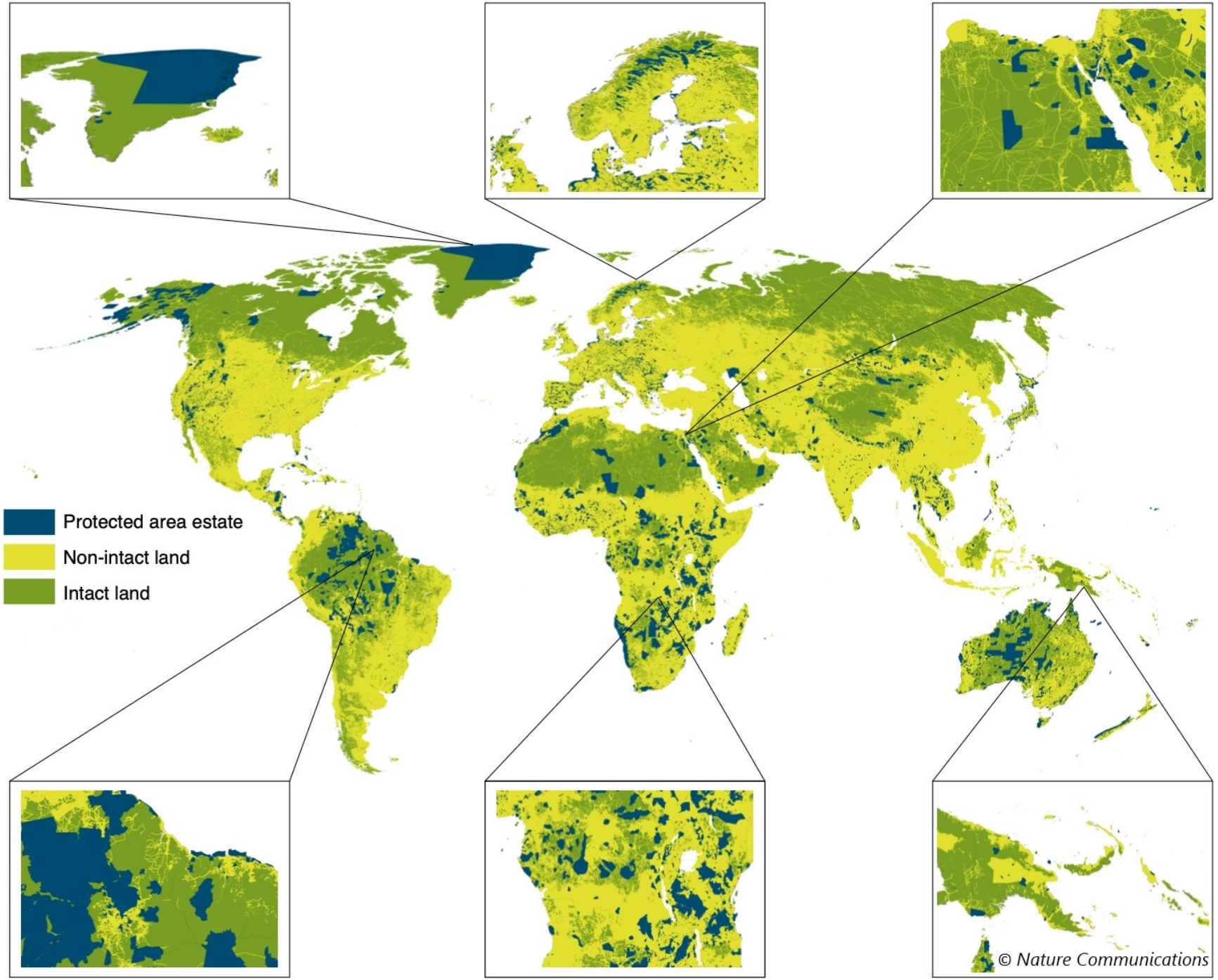
PhD candidate, Cultural Geography, University of Groningen, the Netherlands
Supervisors: Prof. Frank Vanclay & A.P. Philippe Hanna

Master's degree, Landscape Architecture, Tongji University, China
Master's degree, Landscape Architecture, Land Landscape Heritage, The Polytechnic University of Milan, Italy

Research focuses: Social Impact Assessment, Social Equity, Tourism, Landscape Heritages, Protected Areas.



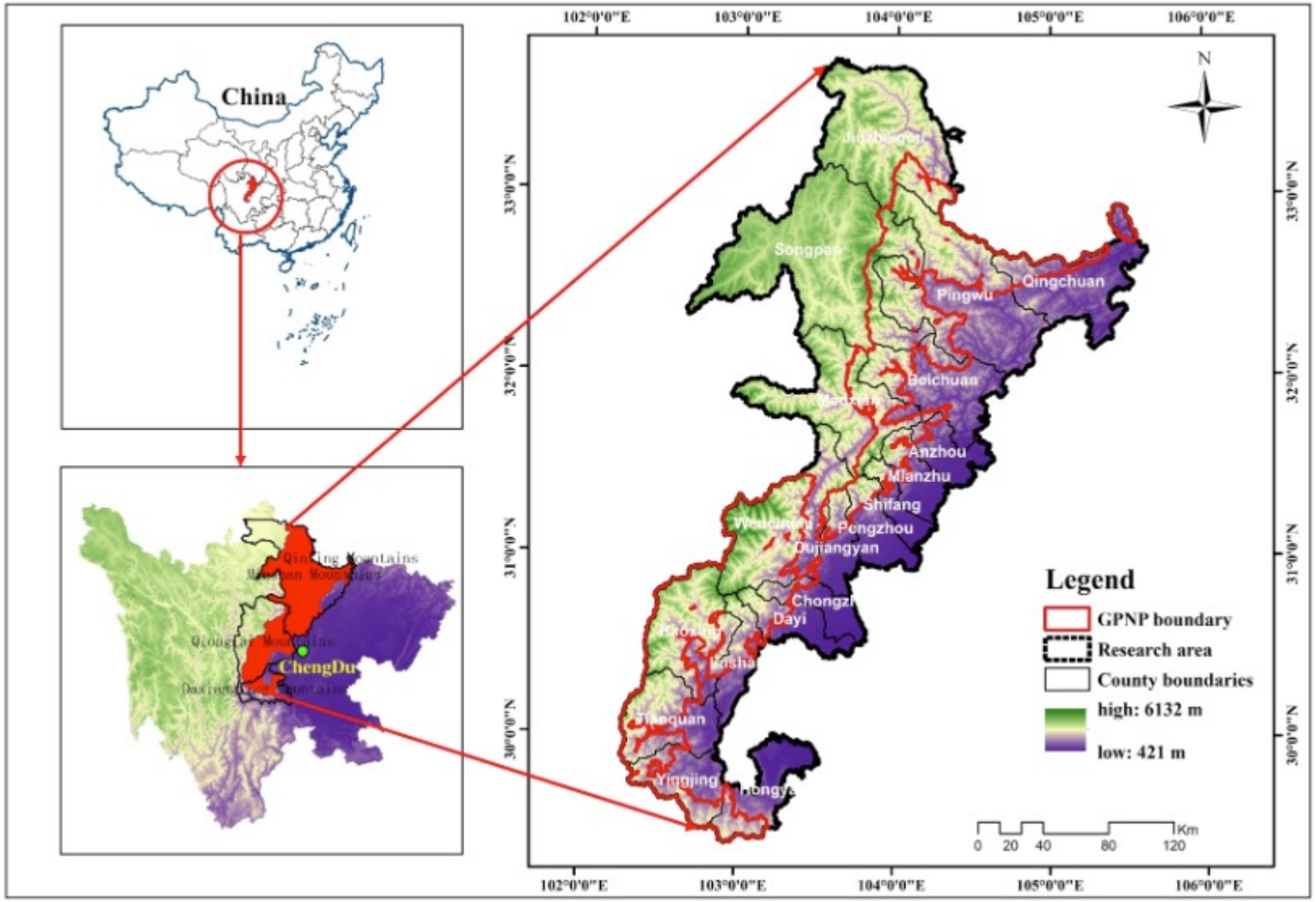
293,696
Protected Areas

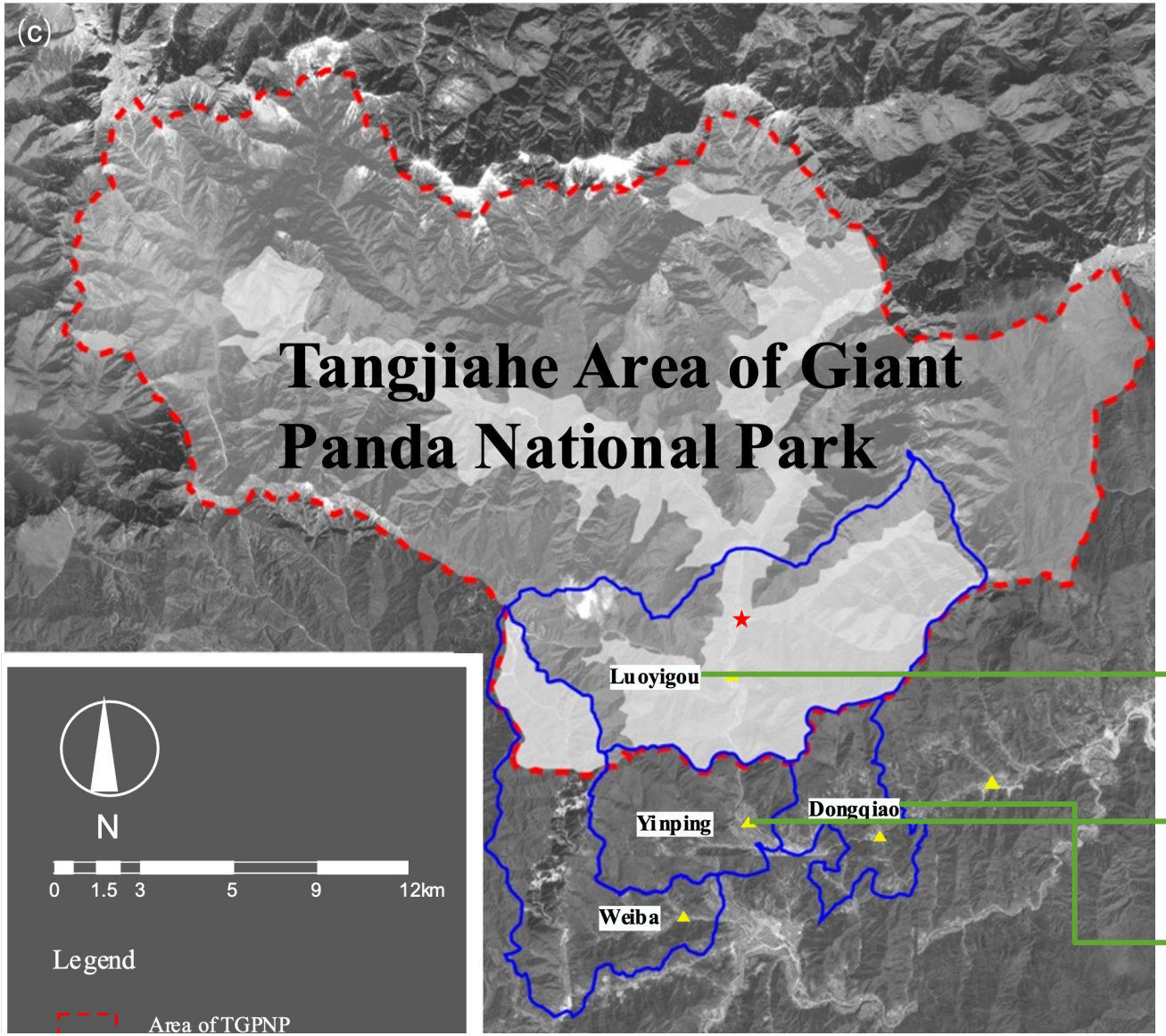


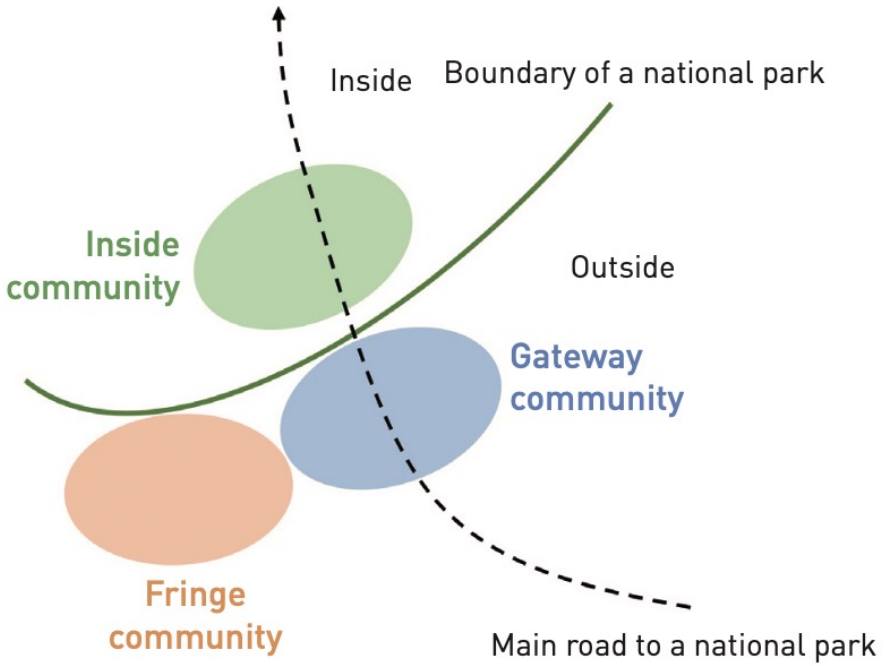
STOP
LAND GRABBIN

What Impacts Do Local People Experience?

- Cross **THREE** provinces
- **Around 220,000 km2**, almost **1/4 size of Ireland**.







Inside village: Luoyigou

Gateway village: Yinping

Fringe village: Dongqiao

Table 3: Basic information of the three sample communities

Community type	Name	Number of households	Area of land	Pillar industry	Main community management strategies
Inside community	Luoyigou Village	470	62.0 km^2	Tourism, agriculture, and cultivation	Human-wildlife conflict compensation, rural-tourism support, beekeeping training, infrastructure construction, forest ranger employment, etc.
Gateway community	Yinping Village	642	39.7 km^2	Tourism and agriculture	Rural-tourism support, beekeeping training, infrastructure construction, forest ranger employment, etc.
Fringe community	Dongqiao Village	445	27.92 km^2	Agriculture and cultivation	Beekeeping training, forest ranger employment, etc.

Yinping – tourism

Luoyigou – farming land

The authority’s efforts

Wildlife conflict compensation

Tourism support, e.g. loans

Green industries support, e.g. beekeeping

Employment, e.g. rangers

The authority's efforts

Field work

An interview with the PA administrative authority

Interviews with local people

296 Valid questionnaires

Social impact famework

Based on Vanclay (2002) & Jones et al. (2020)

Table 2: Indicators for the social impact assessment of communities in/around national park

Category	Indicator	Description	Source
Economy and livelihoods (E)	E1: employment	Local people have access to job opportunities provided by the Giant Panda National Park Administration (GPNPA)	Refs. [8][39]
	E2: benefits sharing	Local people get economic and other benefits from the management of GPNP	Ref. [6]
	E3: eco-compensation	Local people receive fair compensation for their contribution to ecological conservation	Ref. [8]
	E4: livelihood change	The management and conservation of GPNP do not impact traditional livelihoods of local people	Refs. [39][40]
Local culture (C)	C1: cultural value	The construction of GPNP is conducive to enhancing locals' sense of identity and pride to their hometown	Ref. [36]
	C2: traditional knowledge	Local traditional knowledge is recognized by the conservation management of GPNP	Refs. [40][44]
	C3: cultural heritage	The construction of GPNP is conducive to the preservation of the local agricultural and cultural heritage	Refs. [36][40]
	C4: cultural landscape	The construction of GPNP is conducive to the preservation of the local traditional residence and cultural landscape	Refs. [40][45]
Social relations (S)	S1: social network	Local people trust their relatives and neighbors	Refs. [36][42]
	S2: social cohesion	Local people are closely connected without conflicts	Refs. [36][42]
Kowledge and education (K)	K1: capacity building	Local people can participate in skill training and industry-support programs organized by GPNP	Ref. [43]
	K2: environmental education	Local people can participate in educational activities related to ecological conservation	Refs. [36][43]
	K3: environmental behaviors	Local people can participate in ecological conservation work such as forest fire prevention and patrol	Refs. [36][42]
Living environment (L)	L1: livability	The construction of GPNP has effectively protected the natural environment surrounding the communities	Refs. [39][42]
	L2: basic social services and facilities	The construction of GPNP has improved the basic social services and facilities in the surrounding communities	Refs. [39][42]
Equity and rights (R)	R1: legal rights	The construction of GPNP respects locals' legal and traditional rights	Refs. [36][39]
	R2: land ownership	GPNP has no conflict with local people on land ownership, usage or management right	Refs. [39][41]
	R3: decision making	The decision-making process of GPNPA fully respects local people's opinions	Refs. [39][41]
	R4: participation in management	GPNP provides convenient channels and fair procedures to encourage public participation in management	Refs. [8][41]

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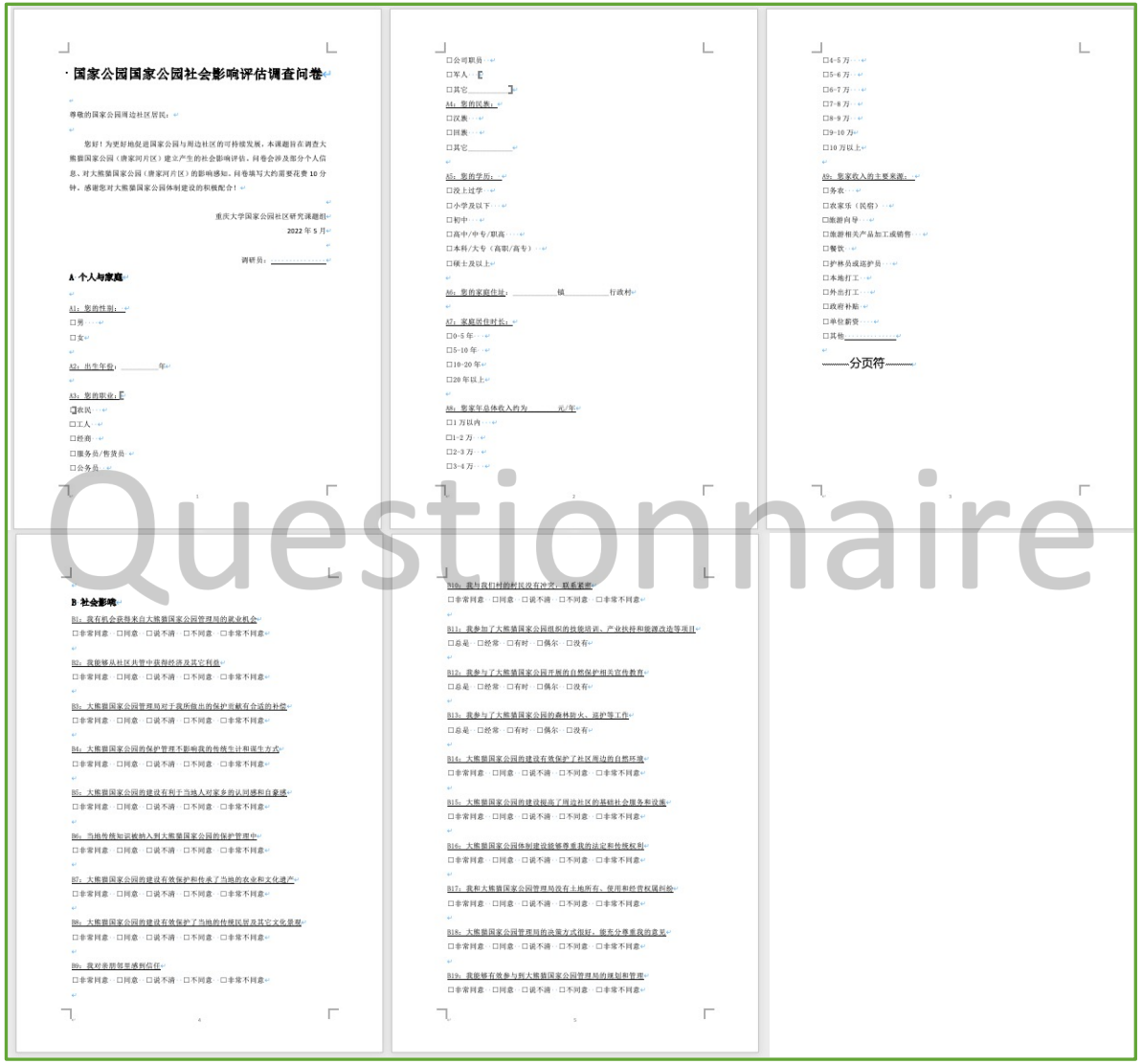
Indicators

Personal characteristics + Social impact indicators

Questionnaire



·国家公园国家公园社会影响评估调查问卷

尊敬的国家公园周边社区居民：

您好！为更好地促进国家公园与周边社区的可持续发展，本课题旨在调查大熊猫国家公园（唐家河片区）建立产生的社会影响评估，问卷会涉及部分个人信息、对大熊猫国家公园（唐家河片区）的影响感知。问卷填写大约需要花费 10 分钟，感谢您对大熊猫国家公园体制建设的积极配合！

重庆大学国家公园社区研究课题组

2022 年 5 月

调研员：_____

A 个人与家庭

A1：您的性别：
□男
□女

A2：出生年份：_____年

A3：您的职业：
□农民
□工人
□经商
□服务员/售货员
□公务员
□公司职员
□军人
□其它_____

A4：您的民族：
□汉族
□回族
□其它_____

A5：您的学历：
□没上过学
□小学及以下
□初中
□高中/中专/职高
□本科/大专（高职/高专）
□硕士及以上

A6：您的家庭住址：_____镇_____行政村

A7：家庭居住村长：
□0-5 年
□5-10 年
□10-20 年
□20 年以上

A8：您家年总体收入约为_____元/年
□1 万以内
□1-2 万
□2-3 万
□3-4 万
□4-5 万
□5-6 万
□6-7 万
□7-8 万
□8-9 万
□9-10 万
□10 万以上

A9：您家收入的主要来源：
□务农
□农家乐（民宿）
□旅游向导
□旅游相关产品加工或销售
□餐饮
□护林员或巡护员
□本地打工
□外出打工
□政府补贴
□单位薪资
□其他_____

分页符

B 社会影响

B1：我有机会获得来自大熊猫国家公园管理局的就业机会
□非常同意 □同意 □说不清 □不同意 □非常不同意

B2：我能够从社区共管中获得经济及其它利益
□非常同意 □同意 □说不清 □不同意 □非常不同意

B3：大熊猫国家公园管理局对于我所做出的保护贡献有合适的补偿
□非常同意 □同意 □说不清 □不同意 □非常不同意

B4：大熊猫国家公园的保护管理不影响我的传统生计和谋生方式
□非常同意 □同意 □说不清 □不同意 □非常不同意

B5：大熊猫国家公园的建设有利于当地人对家乡的认同感和自豪感
□非常同意 □同意 □说不清 □不同意 □非常不同意

B6：当地传统知识被纳入到大熊猫国家公园的保护管理中
□非常同意 □同意 □说不清 □不同意 □非常不同意

B7：大熊猫国家公园的建设有效保护和传承了当地的农业和文化遗产
□非常同意 □同意 □说不清 □不同意 □非常不同意

B8：大熊猫国家公园的建设有效保护了当地的传统民居及其它文化景观
□非常同意 □同意 □说不清 □不同意 □非常不同意

B9：我对亲朋邻里感到信任
□非常同意 □同意 □说不清 □不同意 □非常不同意

B10：我与我们村的村民没有冲突，联系紧密
□非常同意 □同意 □说不清 □不同意 □非常不同意

B11：我参加了大熊猫国家公园组织的技能培训、产业扶持和能源改造等项目
□总是 □经常 □有时 □偶尔 □没有

B12：我参与了大熊猫国家公园开展的自然保护相关宣传教育
□总是 □经常 □有时 □偶尔 □没有

B13：我参与了大熊猫国家公园的森林防火、巡护等工作
□总是 □经常 □有时 □偶尔 □没有

B14：大熊猫国家公园的建设有效保护了社区周边的自然环境
□非常同意 □同意 □说不清 □不同意 □非常不同意

B15：大熊猫国家公园的建设提高了周边社区的基础社会服务和设施
□非常同意 □同意 □说不清 □不同意 □非常不同意

B16：大熊猫国家公园体制建设能够尊重我的法定和传统权利
□非常同意 □同意 □说不清 □不同意 □非常不同意

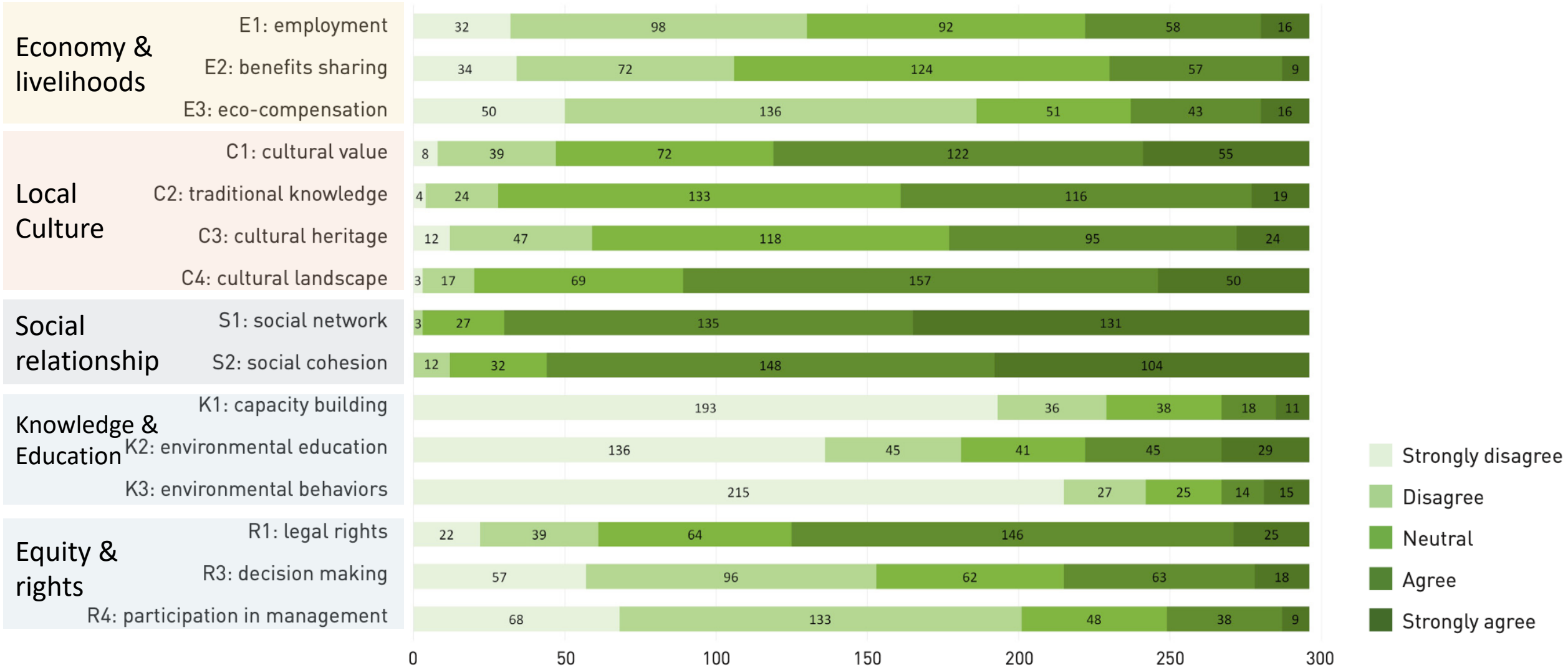
B17：我和大熊猫国家公园管理局没有土地所有、使用和经营权属纠纷
□非常同意 □同意 □说不清 □不同意 □非常不同意

B18：大熊猫国家公园管理局的决策方式很好，能充分尊重我的意见
□非常同意 □同意 □说不清 □不同意 □非常不同意

B19：我能够有效参与到大熊猫国家公园管理局的规划和管理
□非常同意 □同意 □说不清 □不同意 □非常不同意

Method: Principal component analysis

Result 1: **Social relationships > local culture > equity and rights > economy and livelihoods > knowledge and education**



Method: one-way ANOVA analysis

Result 2

- Comprehensive social impacts: **Gateway > Inside >Fringe**
- Economy & livelihoods; knowledge & education: no difference
- Local culture: **Gateway>Inside**
- Social relations: **Gateway>Fringe**
- Equity&rights: **Gateway>Inside**

	E1 employment opportunity	E2 benefits sharing	E3 cost distribution	E economy& livelihood	C1 cultural concept	C2 traditional knowledge	C3 culture heritage	C4 cultural landscape	C local culture	S1 social network	S2 social cohesion	S social relation	K1 capacity building	K2 environmental education	K3 environmental behavior	K knowledge& education	R1 legal rights	R3 participated decision-making	R4 paticipated management	R equity& empowerment	total
Inside commubnity	2.71	2.83	2.48	2.13	3.35	3.37	3.14	3.80	3.37	4.36	4.13	3.98	1.89	2.49	2.07	1.21	3.09	2.54	2.29	1.96	2.50
Gateway community	2.83	2.83	2.52	2.09	3.83	3.45	3.43	3.92	3.79	4.39	4.29	4.06	1.75	2.30	1.41	0.72	3.63	2.83	2.38	2.27	2.55
Fringe community	2.68	2.58	2.27	2.05	3.52	3.42	3.00	3.48	3.45	4.17	3.93	3.82	1.30	1.85	1.23	0.33	3.35	2.32	2.05	1.96	2.29
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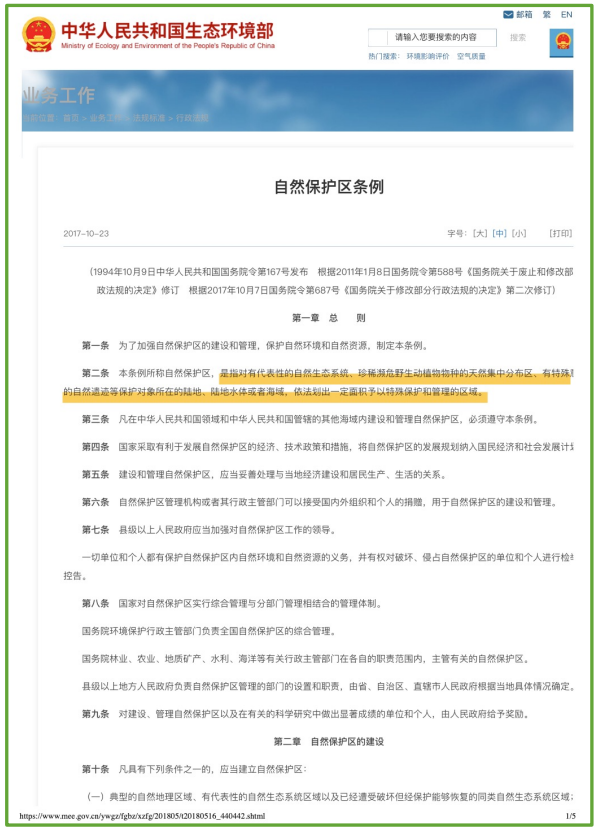
Reasons for the differences


中华人民共和国生态环境部
Ministry of Ecology and Environment of the People's Republic of China

自然保护区条例

2017-10-23

（1994年10月9日中华人民共和国国务院令第167号发布　根据2011年1月8日国务院令第588号《国务院关于废止和修改部政法规的决定》修订　根据2017年10月7日国务院令第687号《国务院关于修改部分行政法规的决定》第二次修订）

第一章　总　则

第一条　为了加强自然保护区的建设和管理，保护自然环境和自然资源，制定本条例。

第二条　本条例所称自然保护区，是指对有代表性的自然生态系统、珍稀濒危野生动植物物种的天然集中分布区、有特殊的自然遗迹等保护对象所在的陆地、陆地水体或者海域，依法划出一定面积予以特殊保护和管理的区域。

第三条　凡在中华人民共和国领域和中华人民共和国管辖的其他海域内建设和管理自然保护区，必须遵守本条例。

第四条　国家采取有利于发展自然保护区的经济、技术政策和措施，将自然保护区的发展规划纳入国民经济和社会发展计

第五条　建设和管理自然保护区，应当妥善处理与当地经济建设和居民生产、生活的关系。

第六条　自然保护区管理机构或者其行政主管部门可以接受国内外组织和个人的捐赠，用于自然保护区的建设和管理。

第七条　县级以上人民政府应当加强对自然保护区工作的领导。

一切单位和个人都有保护自然保护区内自然环境和自然资源的义务，并有权对破坏、侵占自然保护区的单位和个人进行检控告。

第八条　国家对自然保护区实行综合管理与分部门管理相结合的管理体制。

国务院环境保护行政主管部门负责全国自然保护区的综合管理。

国务院林业、农业、地质矿产、水利、海洋等有关行政主管部门在各自的职责范围内，主管有关的自然保护区。

县级以上地方人民政府负责自然保护区管理的部门的设置和职责，由省、自治区、直辖市人民政府根据当地具体情况确定。

第九条　对建设、管理自然保护区以及在有关的科学研究中做出显著成绩的单位和个人，由人民政府给予奖励。

第二章　自然保护区的建设

第十条　凡具有下列条件之一的，应当建立自然保护区：

（一）典型的自然地理区域、有代表性的自然生态系统区域以及已经遭受破坏但经保护能够恢复的同类自然生态系统区域；

https://www.mee.gov.cn/ywgz/fgbz/xzfg/201805/t20180516_440442.shtml 1/5

Regulations of Nature Reserves

- **Differences in conservation policies:** management, restrictions, compensation
- **Differences in community main industries:** Tourism or traditional agriculture
- **Differences in the location and transportation:** along the main road or not.

Main findings

- Relatively positive impacts
- villages have various perceptions
- Limited concerns on fringe communities

Zhang, Yu., Zhang, Yi., 2023, Social Impact Assessment of the Giant Panda National Park in China: A Comparative Analysis of the Inside, Gateway, and Fringe Communities. *Landscape Architecture Frontiers*, https://doi.org/10.15302/J-LAF-1-020078

Other researches

SOCIAL IMPACTS:

Zhang, Yu., Zhang, Yi., 2023, Social Impact Assessment of the Giant Panda National Park in China: A Comparative Analysis of the Inside, Gateway, and Fringe Communities. Landscape Architecture Frontiers.

Zhang, Y., Vanclay, F., & Hanna, Philippe. (under review). How communities and social impacts are considered in policies for protected areas in China, *Land Use Policy.*

SOCIETY EQUITY:

Zhang, Yu., Zhang, Yi., Vanclay, F., 2024. The playing out of distributional, procedural and recognitional equity and the acceptance of protected areas by local people: Evidence from the Giant Panda National Park, China. *Biological Conservation*.

Qiujin Chen, **Yu. Zhang**, Yi. Zhang, Mingliang Kong.,2022. Examining Social Equity in the Co-management of Terrestrial Protected Areas: Perceived Fairness of Local Communities in Giant Panda National Park, China, *Land*

Let’s continue the conversation!

Post questions and comments in the IAIA24 app.

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YUQI ZHANG

University of Groningen, PhD student

Netherlands

yuqi.zhang@rug.nl