Transformational wildlife conservation management in China

Part I: Project Information

GEF ID
10701

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
- [ ] CBIT
- [ ] NGI

Project Title
Transformational wildlife conservation management in China

Countries
Global, China

Agency(ies)
UNDP

Other Executing Partner(s)
National Forestry and Grassland Administration (NFGA)

Executing Partner Type
Government

GEF Focal Area
Biodiversity

Taxonomy
Focal Areas, Influencing models, Stakeholders, Learning, Capacity, Knowledge and Research, Theory of change, Adaptive management, Indicators to measure change, Innovation, Knowledge Generation, Biodiversity, Demonstrate innovative approache, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Communications, Awareness Raising, Public Campaigns, Education, Behavior change, Indigenous Peoples, Beneficiaries, Local Communities, Type of Engagement, Partnership, Participation, Information Dissemination, Consultation, Civil Society, Non-Governmental Organization, Academia, Private Sector, Large corporations, SMEs, Gender Mainstreaming, Gender Equality, Women groups, Sex-disaggregated indicators, Gender results areas, Participation and leadership, Access and control over natural resources, Access to benefits and services, Capacity Development, Protected Areas and Landscapes, Community Based Natural Resource Mngt, Productive Landscapes, Terrestrial Protected Areas, Financial and Accounting, Payment for Ecosystem Services, Conservation Finance, Species, Wildlife for Sustainable Development, Threatened Species, Mainstreaming, Agriculture and agrobiodiversity, Tourism, Infrastructure

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 1

Climate Change Adaptation
Climate Change Adaptation 1

Duration
60 In Months

Agency Fee($)
549,677.00

Submission Date
9/28/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)
BD-1-1	GET	1,721,073.00	29,394,000.00
BD-2-7	GET	4,065,000.00	19,536,000.00
	Total Project Cost ($)	**5,786,073.00**	**48,930,000.00**

B. Indicative Project description summary

Project Objective

To safeguard key threatened and iconic wildlife in China through innovative management technologies, community participation and cross-sectoral engagement approaches.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
1.Promote wildlife conservation policies and technical standard system, draw up key wildlife conservation strategy and action plan for wildlife conservation mainstreaming in China	Technical Assistance	1.1 Further improve policies and technical standards supporting wildlife conservation and integrated planning at the provincial and national level Indicated by: *(a) Cross-sectoral conservation committees, with representation from the central government as well as departments of i) agriculture and rural affairs ii) natural resources iii) forestry and grassland iv) ecology and environment v) transportation vi) culture and tourism established and operational (at least 1 committee at national level and 2 at Provincial level piloted, positioned and operationally primed for scaling up)[1];* (b) *At least 4 policy instruments for improving wildlife/biodiversity developed, adopted and being applied*	1.1.1 Cross-sectoral wildlife conservation coordination mechanism established and key policies in place at the national and provincial level. 1.1.2 An index system and technical standards for identifying the boundaries of key habitats for wildlife and an ecological corridor classification system formulated. 1.1.3 A cross-sectoral training and a capacity building plan developed and delivered.	GET	1,120,000.00	10,805,003.00
		1.2 Mainstreaming wildlife conservation and sustainable management in Giant Panda	1.1.4 Bio-friendly/nature-based sustainable infrastructure construction guidelines in			

		National Park and primate conservation in Yunnan Indicated by: *(a) 2 cross-sectoral wildlife conservation strategies and action plans developed and implemented at the sub-national level* ***All targets and indicators to be revisited confirmed during PPG phase and once a baseline assessment has been undertaken.***	wildlife sensitive areas developed adopted at national level.			
		[1] Agencies to be confirmed during PPG phase	1.2.1 Cross-sectoral strategy and action plan for primate conservation and sustainable management in Yunnan developed and implemented. 1.2.2 Cross-sectoral strategy and action plan for Giant Panda conservation and sustainable management developed and implemented.			
2. Demonstrating integrated landscape management	Technical Assistance	2.1 Increased management effectiveness across 2,749,408 ha of PAs	2.1.1 Improved capacity for PA managers to effectively engage and support participatory, multi-level, cross-sectoral l	GET	2,530,645.00	16,789,000.00

approaches and innovative tools in key endangered globally important wildlife habitats	Indicated by a*n increase in METT scores, including 1 National Park (IUCN category 2), 1 Nature reserv e (IUCN category 1); 1 Protected Area (IUCN category 6).*	andscape approaches t o conserve globally-thr eatened and iconic wild life.
	2.2 Connectivity between patches of key protected wildlife habitats, covering at least 10,100 ha, target ed for improvement through the cr eation of ecological corridors Indicated by: *(a) A minimum of 10,100 ha of ha bitat outside the PA system housi ng threatened species under impr oved management; (b) Newly for med ecological corridors under a singular cross-sectoral planning a nd coordination mechanism, regar dless of landscape type(s); and, (c) No overall decline in Red List s tatus of Ailuropoda melanoleuca, Rhinopithecus bieti, Trachypithec us crepusculus, Macaca arctoides and Nomascus concolor and an u pward trend in the final year of im plementation*	2.2.1 Three ecological corridors established t o link key primate habit ats in Yunlong County, Dali, Yunnan and in Mt. Lasha and Mt. Longma, with a total area of app roximately 4,100 ha, su pported by a cross-sect oral strategy and action plan. 2.2.2 Isolated panda ha bitats in Giant Panda N ational Park form one c ontiguous managemen t zone by establishing a protection system of t wo ecological corridors with a total area of app roximately 6,000 ha, su pported by a cross-sect oral strategy and action plan covering 2.7 millio n ha of national parks, multiple use landscape s and surrounding com munities across 3 provi nces.
	2.3 At least 2,200 ha of key wildlif e habitat enhanced through restor ation measures Indicated by: *2,200 hectares of forest restored using nature-based and/or traditio*	

nal solutions to connect high con servation value forest/wildlife corr idors

2.4 Gender responsive- and com munity-based co-management, an d sustainable development of key habitats at select demonstration s ites providing socio-economic be nefits to local communities Indica ted by: *At least 1,000 individuals d irectly benefit through sustainable natural resource management an d livelihood improvement approac hes and a 15% increase in the ave rage economic benefit (where at l east 40% of beneficiaries are wo men)*

NB: All targets and indicators to be revisited confirmed during PPG phase and once a baseline assessment has been undertaken.

2.3.1 Restoration of 20 0 ha of key primate hab itat undertaken in Yunl ong County. Dali Munic ipality, Yunnan.

2.3.2 At least 3 panda h abitats covering 2,000 ha restored in Giant Pa nda National Park thro ugh biological/ecologic al engineering and othe r technical measures a nd incorporation traditi onal knowledge and pr actices of Jiang, Tibeta n and Han ethnic com munities.

2.4.1 Ecological goods and services, including nature-based tourism, c ertification schemes an d organic farming, in pl

			ace to generate alterna tive income streams fo r local communities. 2.4.2 Alternative livelihood cooperatives established over 300 households with a gender representation of 40 % women.			
3. Deploying frontier technologies and innovative knowledge management solutions for wildlife conservation and landscape planning	Technical Assistan ce	3.1 Data management and inform ation technology capabilities and i dentification of use cases of front ier technologies and innovations f or wildlife conservation managem ent Indicated by: *(a) Key staff are equipped with an d trained on the use of innovative conservation technologies as part of their job; (b) 10 local communit ies are trained on citizen science methods to support integration of biodiversity conservation practice s;* *(c) at least 5 ecological corridors have moved to an automated syst em of monitoring of biodiversity a nd threats; and, (d) at least 2 inno vative technologies are implemen ted in each both pilot site.*	3.1.1 Enabling technolo gies identified and appl ied to support dynamic real-time wildlife monit oring, data collection, a nd data analysis for inf ormed and timely man agement decision maki ng. 3.1.2 A robust data ma nagement platform dev eloped and enabling m achine learning and arti ficial intelligence, towar ds effective decision s upport and comprehen sive wildlife manageme nt (i.e. giant panda gen etic diversity database) 3.1.3 Advanced DNA te chniques, including eD NA surveys and barcod ing, introduced and app	GET	1,859,901.00	19,006,000.00

	3.2 Knowledge sharing on wildlife management, habitat restoration and connectivity established at the national, regional and global levels Indicated by: *(a) public awareness on the importance and values of biodiversity raised by 20% as determined by the Knowledge Attitude and Practice survey; and (b) A university student Innovation competition held across China to showcase cost-effective solutions and technologies for wildlife management and conservation.* ***NB: All targets and indicators to be revisited confirmed during PPG phase and once a baseline assessment has been undertaken.***	lied to populate the genetic diversity panda database. 3.2.1 National and global public awareness campaigns, workshops, collaborations and dissemination of project information to enhance awareness and knowledge of wildlife protection. 3.2.2 University student Innovation competition held across China for public awareness on wildlife conservation knowledge.		
			Sub Total ($)	**5,510,546.00**	**46,600,003.00**
Project Management Cost (PMC)					
			GET	275,527.00	2,329,997.00

	Sub Total($)	275,527.00	2,329,997.00
	Total Project Cost($)	5,786,073.00	48,930,000.00

Please provide justification

To safeguard key threatened and iconic wildlife in China through cross-sectoral engagement, community participation and innovative management technologies across landscapes.

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	National Forestry and Grassland Administration	Public Investment	Investment mobilized	20,000,000.00
Recipient Country Government	National Forestry and Grassland Administration	In-kind	Recurrent expenditures	4,870,000.00
Recipient Country Government	Local Government of demonstration sites in Yunnan	Public Investment	Investment mobilized	10,000,000.00
Recipient Country Government	Local Government of demonstration sites in Yunnan	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	Demonstration sites (Giant Panda National Park)	Public Investment	Investment mobilized	10,000,000.00
Recipient Country Government	Demonstration sites (Giant Panda National Park)	In-kind	Recurrent expenditures	1,390,000.00
Private Sector	GAC Toyota	Grant	Investment mobilized	40,000.00
Private Sector	Ant Forest project of Ant Group	Grant	Investment mobilized	850,000.00
Civil Society Organization	TNC	Grant	Investment mobilized	70,000.00
GEF Agency	UNDP	Grant	Investment mobilized	710,000.00
			Total Project Cost($)	**48,930,000.00**

Describe how any "Investment Mobilized" was identified

Central Government: Investments have been mobilized through the National Forest and Grassland Administration’s Habitat protection programmes, including but not limited to, the “Ecological compensation of Public Welfare Forest and subsidy of Conversion Farmland to Forest” projects. National level: This funding is expected to support the enhancement and transformation of cross-sectoral conservation coordination at the national and sub-national level, and to develop technical standards and guidelines as articulated in the strategic results framework. The fund will also be used for carrying out ecological compensation and restoration projects, as well as other activities for the demonstration sites. Sub-national: Provincial engagement will be financed via annual provincial level habitat protection programmes allocations, towards the local implementation of project activities, including the restoration projects and the establishment of corridors between PAs in Dali (Yunlong County) and in Giant Panda National Park. Private sector: Investments from the private sector are expected to enhance the management effectiveness by providing wildlife rescue equipment, field patrol equipment and monitoring tools; investments from the private sector will vary from

year-to-year. Private sector investment of US$ 850,000 (phase 2) from the Ant Forest project of Ant Group will contribute towards ecological corridor construction. UNDP: UNDP will provide grant co-financing of $710,000 for support to sustainable development at the landscape level under the Country Programme Action Plan, contributing towards the project's overall objectives.

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	GET	China	Biodiversity	BD STAR Allocation	5,557,762	527,988	6,085,750.00
UNDP	GET	Global	Biodiversity	BD Global/Regional Set-Aside	228,311	21,689	250,000.00
				Total GEF Resources($)	**5,786,073.00**	**549,677.00**	**6,335,750.00**

E. Project Preparation Grant (PPG)

PPG Required ☑

PPG Amount ($)

150,000

PPG Agency Fee ($)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	GET	China	Biodiversity	BD STAR Allocation	150,000	14,250	**164,250.00**
				Total Project Costs($)	**150,000.00**	**14,250.00**	**164,250.00**

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2,749,408.00	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
2,749,408.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Caojian plantations of Yunlong County		Others	21,533.00						
Giant Panda National Park		National Park	2,713,400.00						
Yunnan Yunlong Tianchi National Nature Reserve		Strict Nature Reserve	14,475.00						

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2200.00	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2,200.00			

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
10100.00	0.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

10,100.00

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

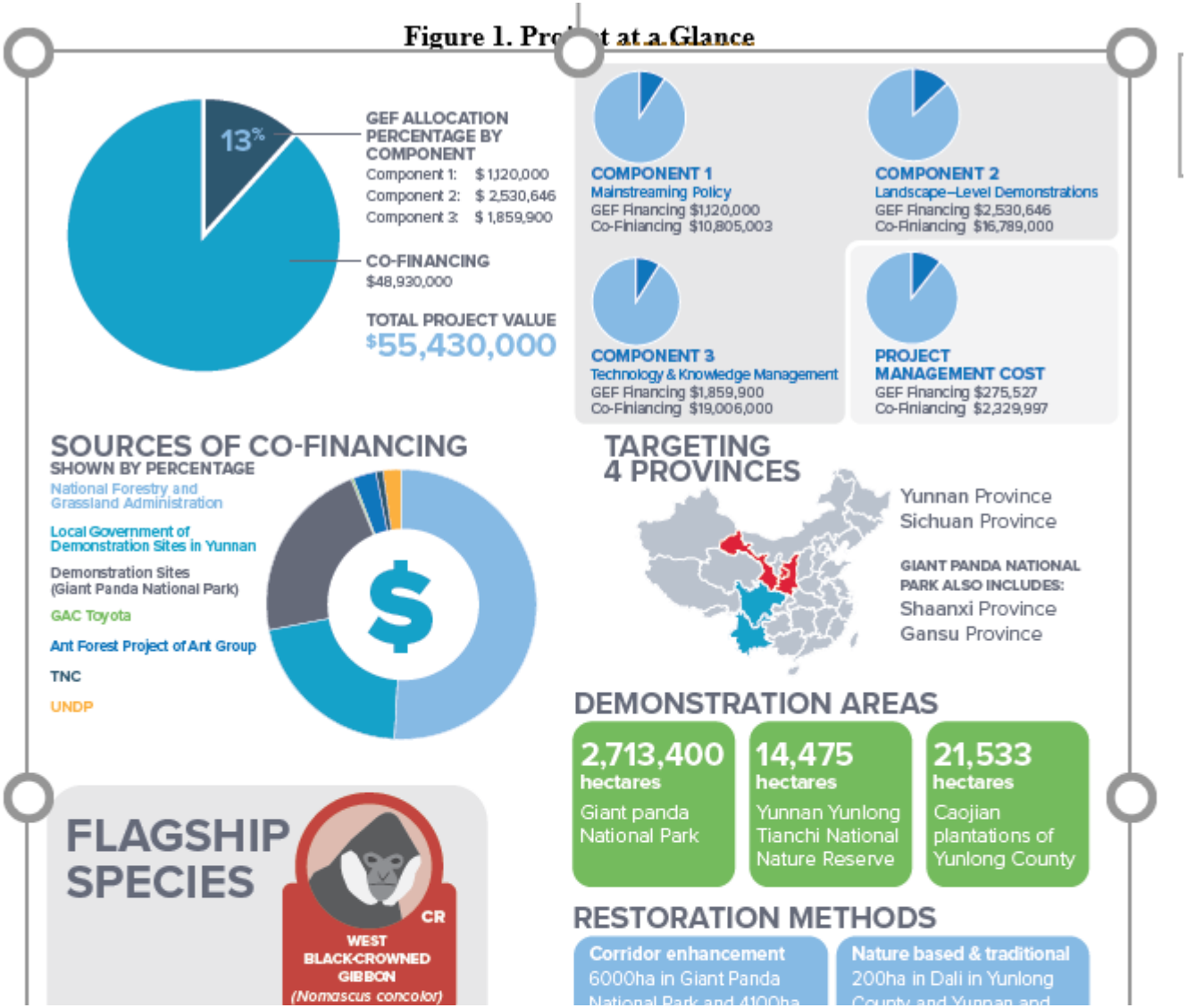
	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	4,000			
Male	6,000			
Total	10000	0	0	0

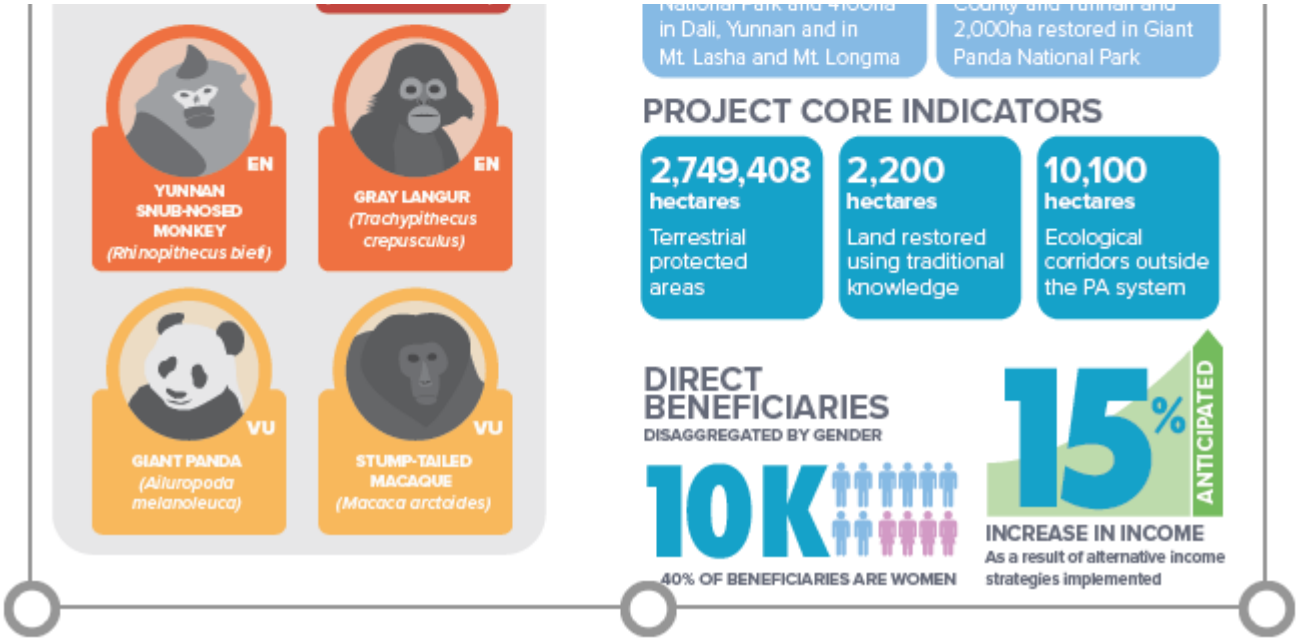
Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

The logic and methodology underpinning GEF Core Indicator 3 “Area of land restored” involves restoration of 200 ha of Western black crown gibbon habitat in Dali (Yunlong County), Yunnan, together with practices suitable for the restoration of 2 or 3 panda habitats covering 2000 ha restored in Giant Panda National Park which will employ biological/ecological engineering techniques and the incorporation traditional restoration practices known to the Jiang, Tibetan and Han ethnic communities. The project is expected to directly contribute to the GEF Core Indicator 4 “Area of landscapes under improved practices” in the following manner: 4,100 ha of corridors between naturally forested areas with populations of globally-threatened and iconic wildlife (see table 1) in Yunlong County, Dali, Yunnan and by linking key wildlife habitats in Mt. Lasha and Mt. Longma. Connectivity between fragmented panda habitats in Giant Panda National Park will also be enhanced through the establishment of 6,000 ha of corridors to form one contiguous area of 2.7 plus million hectares of national parks and surrounding area. Through ecological corridor and habitat restoration activities, this project will effectively protect Western black crested gibbon, Black-and-white Snub-nosed monkey, Indochinese Gray Langur, Stump-tailed Macaque and Giant Panda populations, as well as their associated environment, and the results will contribute towards the achievement of Aichi Targets 12, namely to “prevent the known endangered species from extinction, and the protection of the most serious species to be improved and maintained.” The project will also develop participatory provincial wildlife protection strategies and action plans in Yunnan and Sichuan provinces with the inclusion of relevant authorities to mainstream wildlife protection in relevant sectors. Through participatory engagement and the adoption of policy tools, the project contributes to Aichi target 14 “ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable” as well as Target 17, encouraging Parties to commence “an effective, participatory and updated national biodiversity strategy and action plan.”, as well as (Strategic Goal “E”) “to enhance implementation through participatory planning, knowledge management and capacity building.” Finally, the project will have an estimated total of 10,000 direct beneficiaries, including 4,000 women, at the local, provincial and national level . Of this total, there will be 1,000 local beneficiaries (400 of which will be women), who will profit directly from livelihood opportunities generated by newly developed economic approaches. Numerous ethnic minorities and local communities within and adjacent to the two proposed project demonstration sites and through a programme of enhancing livelihoods and economic options within them, together with the adoption of traditional and local knowledge to support habitat restoration, the project will contribute to the Aichi Targets 18 by making use “traditional knowledge, innovation and practice associated with genetic resources created by indigenous and local communities will be respected, used and benefited”, and by ensuring “effective participation of indigenous and local communities, at all relevant levels.”.

Part II. Project Justification

1a. Project Description





1a. Project Description.

The objective of the project is to safeguard key threatened and iconic wildlife in China through innovative management technologies, community participation and cross-sectoral engagement approaches.

1a (1) Global environmental problem, root causes and barriers that need to be addressed (systems description).

A recent landmark report by the United Nations Convention on Biological Diversity (UNCBD), Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and Food and Agriculture Organization (FAO) - reflecting the most comprehensive and authoritative assessment ever completed - paints a sobering picture for the future of biodiversity and the critical life-support systems they provide.

The Earth's biological resources are vital to economic and social development, but human activities are stretching nature to its limits and are increasingly taking their toll on both the abundance and diversity of species, and our well-being in the process. According to the UNCBD, an estimated 1 million animal and plant species are now threatened with extinction, many within the coming decades, more than ever before in human history. Nowhere is this accelerated decline more pronounced than in the world's 17 Megadiverse countries. These countries account for only 10% of the Earth's surface yet house at least 70% of the planet's terrestrial biological diversity, including more than two thirds of all non-fish vertebrae species and three quarters of all the higher plant species.[1] In response the global community has adopted several global initiatives to address this, including the UN Decade on Ecosystem Restoration (2021–2030), and is working towards re-affirming ambitious targets associated with the Post-2020 Global Biodiversity Framework to realize the 2050 Vision of "Living in harmony with nature".

With a population closing in on 1.4 billion people, China is among the fastest-growing economies in the world. China has a total land area of 960 million ha and its capacity to conserve or consume natural resources is inextricably linked to its propensity to adopt both national and global conservation measures. The huge footprint China exacts on the environment is breath-taking, with impacts to biodiversity and their functions (both within and outside its borders) felt in all corners of the globe. As one of the 17 Megadiverse countries, China has among the highest biodiversity assemblages in the world with a wide range of geographic and biological features from mountain chains, to deserts, to grasslands, to forests ranging from boreal to tropical evergreen and mangroves, as well as extensive marine areas including important coral reefs. China also has more than 34,984 known higher plant species, ranking third in the world and 6,445 vertebrate animal species, accounting for 13.7% of the world's total. More than 10,000 fungi species are known in China, making up 14% of the world's total.[2]

From a conservation perspective, China has made remarkable strides on adopting forward-thinking measures to protect key habitats and threatened wildlife. To supplement its steadily growing protected area network, China is ambitiously adopting a strategy of ecological redlines, a valuable example of an effective approach that has potential to be applied at scale globally, for improving nature conservation worldwide, to define limits to human encroachment into ecologically sensitive and vulnerable areas and enforce strict conservation to guarantee national ecological security, as well as to protect and improve the health and safety of the people. Administered by the Ministry of Natural Resources, the redline process is critical in maintaining its ecological security, ecosystem function, and sustainable socioeconomic development and about a quarter of land is scheduled to be covered by the redline by the end of 2020. It is and will continue to be an integral tool that can be deployed for a more integrated approach to development planning and a valuable entry point and policy lever for the proposed project. The Chinese government has also taken the comprehensive management of mountains, rivers, forests, farmlands, lakes and grasslands as the starting point to strengthen the protection of biodiversity and ecological restoration outside its protected area system. Especially in June 2020 when the National Development and Reform Commission and the Ministry of Natural Resources released "The master Plan for Major National Projects for the Conservation and Restoration of Major Ecosystems (2021-2035)"[3], putting forward "three areas and four bands", including the Yangtze key biome (including Sichuan-Yunnan ecological shelter zone) as the overall layout of major national projects for the protection and restoration of major ecosystems. Progress at the species level has also been met with some notable successes. In 2016 for example, the conservation status of the giant panda (*Ailuropoda melanoleuca*), an iconic species, was upgraded from endangered to vulnerable and has since seen strong population increases and is reported to be expanding their distribution ranges.

Despite China's tremendous resource endowments and conservation achievements, there are still contradictions between economic development and biodiversity conservation. The general trend of biodiversity decline has not yet been fully and effectively arrested and wildlife conservation has produced mixed results in some cases.[4] The numbers of large carnivores - essential for controlling prey and shaping the structure of ecosystems - have markedly decreased from protected areas in the giant panda distribution range since the 1960s: leopard (*Panthera pardus*, 81% decline), snow leopard (*Panthera uncia*, 38% decline), wolf (*Canis lupus*, 77% decline) and dhole (*Cuon alpinus*, 95% decline).

Globally, primate populations are also facing an imminent extinction crisis and are essential in a healthy forest ecosystem and landscapes; they are prey, predator, and a synergistic species in food webs and thereby influence ecosystem structure, function, and resilience. Primates are known connectors of habitats and most likely to adapt to modified environments. Different forms of land-use change pushes biodiversity into human-modified landscapes, where

native habitats are surrounded by modified land covers. Recent research suggests that the ability of species to use these emerging changed landscapes remains poorly understood and that primates are good indicators and proxies of how species adapt and the risks posed by widespread landscape change.[5] However, 60% of primate species are classified as vulnerable, endangered, or critically endangered, and 75% of them are under threat of population decline. With the second highest primate diversity in Asia, China has 28 species of primates in 7 genera and 4 subfamilies, including lorises, macaques, langur monkeys, snub-nosed monkeys, and gibbons. Of these, 36 percent are endemic to the country, with 6 species listed as critically endangered and 2 species of gibbons ecologically extinct. Primates are an important part of an ecosystem and its absence is indicative of degradation and reduced service functions. Yunnan Province is a biodiversity hot-spot with half of China's biologically significant species located here. Of particular concern are the Yunnan snub-nosed monkey (*Rhinopithecus bieti*), one of the most prized protected species in China and the western Yunnan subspecies of the West Black-crowned gibbon *(Nomascus concolor*) which is limited to a small part of Guangxi, Hainan and Yunnan. The former is classified as endangered on the IUCN Red List and while China has been able to increase its numbers by 75% between 1994 and 2019, its distribution has shrunk due to habitat loss and fragmentation as a result of the persistence of human activities and hunting. Other key primate species present in the selected landscape include the Indochinese Gray Langur (*Trachypithecus crepusculus*) classified as endangered, and the Stump-tailed Macaque (*Macaca arctoides*) classified as vulnerable. Dali Prefecture, where one of the proposed demonstration sites will be located, has 9 species with national level-I protection and 43 with level-II designation. Deforestation is harming these species, and they risk losing its forest home and food sources to agricultural expansion altogether. Similarly, and also in Dali Prefecture (Yunlong County), the distribution of the West Black-crowned gibbon, listed as "Critically Endangered", has shrunk exponentially and is now only found in the northernmost perimeter of its range with an estimated 20 individuals across 2 to 3 populations left in the wild.

The practices of China's conservation efforts to date suggest that cross-sectoral coordination, policy changes, enhanced guidelines where gaps exist and technological innovations are needed to prevent the extinction of known threatened species under the guidance of ecological civilization and community of life in mountains, rivers, forests, fields, lakes and grasses, while ensuring greater inclusivity of, and benefits flowing, to local communities. As the incoming presidency of the 15th Conference of the Parties (COP15) to the Convention on Biological Diversity, China has released its blueprint for action through a Position Paper entitled "*Building a Shared Future for All Life on Earth: China in Action*". COP15 and China's incoming COP presidency are both entry points for the prioritization of the problems articulated in this project and open up engagement opportunities with the private sector and academia in these efforts. China's blueprint on ecological civilization is also the anchor for the business case since many themes for the project have been gleaned from the above-noted position paper, and will support its priorities going forward. With this in mind, the Giant Panda National Park which is expected to be completed this year also offers a unique opportunity through a range of flagship species to coordinate strategies and policies at a landscape scale on regional level and ensuring that habitat restoration and corridor construction are enhanced by technological innovations and underpinned by robust action plans to benefit primates and other threatened wildlife.

Table 1. Some of the Endangered Species in the demonstration sites

Species	Scientific name	IUCN Status IUCN	No[6].
Indochinese Gray Langur	*Trachypithecus crepusculus*	EN	160
Assamese Macaque	*Macaca assamensis*	NT	210
Stump-tailed Macaque	*Macaca arctoides*	VU	320

Rhesus Monkey	*Macaca mulatta*	LV	450
Red panda	*Ailurus fulgens*	EN	
Forest Musk Deer	*Moschus berezovskii*	EN	
Himalayan Black Bear	*Ursus thibetanus*	VU	
Leopard Cat	*Prionailurus bengalensis*	LU	
Golden Eagle	*Aquila chrysaetos*	LU	
Himalayan Griffon	*Gyps himalayensis*	NT	
White-tailed Sea-eagle	*Haliaeetus albicilla*	LU	
Syrmaticus humiae	*Syrmaticus humiae*	NT	
Giant Panda	*Ailuropoda melanoleuca*	VU	1631
Black-and-white Snub-nosed monkey	*Rhinopithecus bieti*	EN	200
Western black crested gibbon	*Nomascus concolor*	CR	30
Gold snub-nosed monkey	*Rhinopithecus roxellanae*	NT	
Clouded leopard	*Neofelis nebulosa*	VU	
Leopard	*Panthera pardus fusca*	VU	
Ounce	*Panthera uncia*	VU	
Alpine Musk Deer	*Moschus sifanicus*	EN	
Takin	*Budorcas taxicolor*	VU	
Black-necked Crane	*Grus nigricollis*	VU	
Pallas's Fish-eagle	*Haliaeetus leucoryphus*	EN	
Eastern Imperial Eagle	*Aquila heliaca*	VU	
Bearded Vulture	*Gypaetus barbatus*	NT	
Great Bustard	*Otis tarda dybowskii*	VU	
Chinese Monal	*Lophophorus lhuysii*	VU	
Chestnut-throated Partridge	*Tetraophasis obscurus*	LC	

Chinese Grouse	*Bonasa sewerzowi*	NT	
Black Stork	*Ciconia nigra*	LC	
Oriental Stork	*Ciconia boyciana*	EN	
Asian Crested Ibis	*Nipponia nippon*	EN	
Scaly-sided Merganser	*Mergus squamatus*	EN	

Root causes of biodiversity decline in production landscapes and insufficient biodiversity mainstreaming in China.

China attaches great pride and importance to its rich biodiversity and has been working to expedite the mainstreaming of biodiversity across all departments and sectors. It was one of the first parties to sign the UNCBD in 1992 and will host and assume the Presidency at the Fifteenth Conference of the Parties to the Convention on Biological Diversity, to be held in Kunming, Yunnan Province, in 2020. Rapid economic growth of the country over the last decades however has resulted in ecological degradation, environmental pollution and other adverse effects.

The project has purposely selected Yunnan and Giant Panda National Park to demonstrate a landscape approach to conserving iconic and threatened wildlife and hone its remediation efforts through corridor connectivity enhancement and ecological restoration. Yunnan Province simply put, is the richest in China for biodiversity, with Sichuan Province a close second. Both Yunnan and the mountains of Southwest China which include Sichuan, are among the world's 36 biodiversity hotspots as defined by areas with exceptional concentrations of endemic species (containing at least 0.5% of the Earth's plant species as endemics) and are experiencing increasing, large-scale habitat loss, at least 70% of which is caused by human disturbance. In Sichuan, the Giant Panda National Park not only includes more than 30% of the world's population of giant Panda and constitutes the largest and most significant remaining contiguous area of panda habitat in the world, the area is also one of the botanically richest sites of any temperate region in the world. The entire park located across Sichuan, Shanxi and Gansu provinces, spans two national Key Biodiversity Zones, i.e. Northern section of Minshan-Hengduanshan Mountain Area and Qinling Mountain Area, according to China's NBSAP, which identifies 32 national Key Biodiversity Zones within China's territory.

The high variability in climatic and geographic conditions within Yunnan makes its biodiversity very fragile since habitats are consequently quite small and often endangered by growing human populations, habitat fragmentation, expanding of agricultural plantations and increasing pollution. Sichuan has exceptional value for biodiversity conservation and can demonstrate how ecosystem management systems can work across the borders of national and provincial protected areas. While the underlying root causes and barriers will be fully explored during PPG phase as part of the project's Theory of Change, major drivers to biodiversity loss, especially in the context of wildlife species, are as follows:

Population growth, economic growth and human activities: China's huge population, and the explosive intensity and scale of human activity as a result of a booming economy, an expanding middle class and industrial/agricultural expansion have not fared well for the environment. Population growth has also altered demand for and causes unsustainable use of natural resources. While economic expansion has successfully lifted large numbers of people out of

poverty, this development has been largely predicated on industrialization, urbanization, and intensification of agricultural production and has led to biodiversity loss, increased pollution, widespread habitat degradation and increased ecological fragmentation, especially in high conservation value and threatened landscapes. Despite huge efforts and investments by the government to conserve biodiversity, losses have not been contained to date.

Loss/degradation of habitat and Climate change: Deforestation, forest fire, pollution and the alien invasive species cause the destruction, differentiation and degradation of wildlife habitat. Grasslands have been overgrazed, fenced, converted to agriculture and suffer from spreading desertification. Commercial logging, agricultural land development and pasture expansion have led to the rapid disappearance of tropical rainforests and temperate virgin forests, and the loss and degradation of high-altitude bamboo forests on which giant pandas and many other species depend. Affected by climate change, the frequent occurrence of extreme weather, such as drought, flood, heat-wave and cold snaps, has destroyed the health of many ecosystems and the exertion of their regulation and supply capacity. The interference, through deforestation, agricultural expansion, livestock intensification and habitat fragmentation, has not only made wildlife more vulnerable, but also brought them into closer contact with people, which we know can result in spillover of pathogens; another dimension of the threat to human health in addition to decreased ecological services.

Over exploitation and utilization, trade and livelihood demand: The demand of traditional Chinese medicine and the growth of the import and export trade of medicinal materials resources, led to the over exploitation of wildlife resources; the traditional way of livelihood is highly dependent on wild animal and plant resources, such as hunting and fishing habits, which also makes the local wild animal and plant resources decrease. Proactive alternative livelihoods are needed to inhibit the dependence of local communities on natural resources and to pursue synergistic progress in biodiversity conservation and poverty alleviation. The dynamic pace of development expansion in China is, simply stated, placing huge pressures on all land resources in the form of mining, construction, transport hubs, industry, plantations etc. The pressure on remaining natural areas is extreme and their current level of legal and de facto protection is weak despite the Chinese government having put great efforts in actions and funding in recent years. This pressure, which is fuelled by the push to exploit any available land and resources to push GDP, is far greater than rural poverty as a driver. Weak governance adds to this problem.

Inadequate consultation with and opportunities for local communities: Local communities living around protected areas and in adjacent areas to threatened species' habitat are not actively engaged and consulted in land-use planning. Population growth has also altered these communities' demand for natural resources and their unsustainable use of them. With the increase of population, the community's dependence on forest resources is higher, and the way of resource utilization has changed from sustainable utilization to unsustainable utilization, leading to the continuous decrease and disappearance of resources. There are currently few alternatives by way of income generating opportunities to suppress their dependence on natural resources for survival. A solution would be to help local communities identify possible opportunities for additional financial or livelihood benefits.

Insufficient awareness: Although China has carried out a lot of publicity and education on biodiversity conservation, most recently with its position paper for the 2020 UN Biodiversity Summit, the overall awareness of biodiversity and wildlife resources conservation and sustainable utilization is still insufficient, and the awareness of the value and importance of ecosystem services and their dependence on the integrity of biodiversity health is lower.

Poor cross-sectoral coordination: The insufficient awareness also affects the cooperation of relevant government departments. Due to the lack of a dedicated coordination mechanism, wildlife protection is not mainstreamed in the planning of key areas such as transportation, culture and tourism. A lack of explicit actions for each of these sectors also affects the protection and utilization of wildlife management. Moreover, the current Environmental Impact Assessment system does not include wildlife considerations explicitly. Despite China's legislative attempts to conserve its natural resources and in turn protect biodiversity, Chinese law in many aspects remains ineffective in pursuit of these goals due to struggles with implementation, enforcement, and insufficient public participation, as well as legislative prioritization of economic arguments over ecological ones China can improve this legislation by increasing the public's role in conservation efforts, increasing liability and enforcement mechanisms, and improving administrative coordination.

Barrier analysis.

There are a number of key drivers of the multiple threats to wildlife decline and poor biodiversity mainstreaming which have undermined the government's efforts to address them:

Barrier 1: Highly centralized approach to biodiversity conservation and systemic issues reinforcing inadequate integrated planning:

China's traditionally centralized approach to biodiversity conservation, with limited cross-sectoral consultation and local participation, creates poor conditions for meaningful biodiversity mainstreaming. It can lead to competing interests, overlapping priorities, misaligned policies and practices, and conflicts between local communities and national administrators over the benefits of biodiversity goods and services. Effective landscape and biodiversity management is also constrained by a lack of cross-sectoral planning integration with targeted actions by sector and lack of coordination between different government agencies. Several government agencies covering fields such as agriculture, environmental protection, mining, construction, communications, water resources, tourism and culture etc. also operate inside and adjacent to protected areas, alongside the local Prefecture and County governments. Historically, these institutions have tended to operate independently from the protected areas management authorities. Sub-provincial governments also plan and implement work inside PAs without due coordination, or consideration to biodiversity conservation on a wider scale. This has led to promotion of many activities that have had negative biodiversity impacts. Institutional problems across regions and departments can be resolved through end-to-end biodiversity mainstreaming with a singular participatory mechanism and anchored by harmonized framework aligning policies, elevating biodiversity across sectors, as well as incentivizing cooperation across land types. Happily, there is a growing recognition of this barrier and as part of decentralization institutional reforms in 2018, China set up the Ministry of Natural Resources - effectively merging the functions of national natural resources administration previously split among several agencies - which was given the responsibility of coordinating land and space ecological restoration and implementing major projects related to ecological restoration, as well as a conservation profile since it is now also responsible for supervising the development, utilization, and protection of China's natural resources, establishing and implementing a spatial planning system, unifying investigations and rights registration, establishing a system for the paid use of natural resources and managing surveying, mapping and geological exploration industries. The Ministry of Natural Resources has also taken over the role of redlining from Ministry of Ecology and Environment, and therefore, its conservation function and mandate has been significantly strengthened since 2018. This is certainly a step in the right direction that is likely to open up new opportunities for a more holistic approach.

Barrier 2: Inadequate institutional and staff capacities for restoration and connectivity management:

Giant panda and primate habitats are threatened by loss and degradation, and there is no protection plan for habitat restoration and corridor construction leading to unsustainable levels of fragmentation to meet species' life-cycle needs. In China, like the rest of the world, primates face the threat of habitat loss and degradation. Habitat restoration and habitat corridor construction is needed to effectively reduce this threat. However, most of the existing primates are located in remote mountainous areas, making it difficult to carry out habitat restoration and habitat corridor construction work. To adequately meet the needs of these species and increase the chances of an upward trajectory in their conservation status, long-term monitoring is required to fully document their habitat and food requirement, their behavioural responses to human disturbance, and their sensitivity to climate change. There is no current long-term monitoring data and comprehensive genetic assessment to support the habitat needs of target species and consensus of optimal remediation efforts to prioritize approaches at specific sites. These are critical elements and a barriers to an effective long-term management plan.

Barrier 3: Inadequate biodiversity assessments in remote areas, insufficient knowledge sharing and scaleable solutions to trigger a paradigm shift:

Due to harsh scientific research conditions in marginal and remote areas, the investigation and evaluation of wildlife species in northwest Yunnan has been suboptimal, thereby undermining protection planning. With the emergence and proliferation of 3D visual inspection technology and infrared camera technology, species have been gradually discovered and reported, but there is still a lack of systematic investigation, coordination and evaluation. This is compounded by a widespread lack of awareness about the importance and values of biodiversity in maintaining vital ecosystem services across all sectors along with in-depth understanding the self-healing power of nature and how to advance ecological restoration projects in a scientific manner. This results in insufficient investment in biodiversity conservation and mainstreaming across sectors leading to chronic underfunding for conservation. Awareness and access to up-to-date and accurate data needs to be exponentially scaled-up and strengthened at all levels of government, public, media and corporate society. This is the cornerstone of effective planning, mitigation and adaptation strategies.

For China to truly lead and make inroads on globally threatened biodiversity and wildlife, it will need to be proactive and address its significant and rising ecological footprint outside its borders. This is only possible with the appropriate national preconditions, approaches and models that can be then tested for wider application globally. With abundant ingenuity and technological prowess, China is well positioned to further address the challenge of mainstreaming biodiversity across sectors and to help safeguard globally important threatened species through restoration and corridor enhancements and a landscape approach that facilitated by supportive policies, guidelines and innovative technology-aided and knowledge management solutions.

1a (2) the baseline scenario and any associated baseline projects

Coordination mechanisms for biodiversity in China

There are three coordination mechanisms relevant for biodiversity in China, all of which have been approved by the State Council:

i. CBD Implementation Coordination Group established in 1993, originally comprising 10 ministries (and increased to 20 ministries in 2005) and which has now ceased all operations;

ii. Joint ministry Conference on Genetic Resources established in 2004, comprised of 17 ministries, with the scope of addressing "bio-piracy" and international negotiations on access to and benefit sharing of genetic resources under the Nagoya Protocol. This mechanism was active between 2004-2010 and has gradually weakened; and,

iii. National Commission of Biodiversity Conservation (NCBC) established in 2010 in parallel with the United Nations Decade on Biological Diversity (2011-2020). Since 2011 it has become a fixed coordination mechanism related to all biodiversity issues and was originally comprised of 25 ministries (now 23 following recent ministry restructurings) and headed by the first vice premier (one of the top 7 leaders in China). Therefore, it is the entity with most clout and is an influential mechanism functioning as:

· A coordination body for strategy and action planning on biodiversity conservation issues;

· A decision-making body on policies for biodiversity conservation;

· A vehicle for strategy formulation and for taking positions on international activities related to biodiversity issues including national implementation of the CBD and its Protocols);

· A conduit for resolving conflicts between sectors and between central and provincial government.

China's wildlife resources and habitat fragmentation

According to the 2014-2015 Red List of Vertebrates in China, organized by the Ministry of Environmental Protection, China is the second richest country in the world in mammals, fourth richest in birds and fifth richest in amphibians. The assessment found that 169 mammal species in China were threatened with extinction, accounting for 25.76% of the total assessed species, far higher than the world average threat rate of species on the IUCN Red List. In the 2013 edition of CITES appendix, the total number of wildlife listed in China is 461 taxa. Many wildlife habitats have been destroyed, degraded and reduced. With the second highest primate diversity in Asia, China has 28 species of primates in 7 genera and 4 subfamilies, including lorises, macaques, langur monkeys, snub-nosed monkeys, and gibbons. Of these, 36 percent are endemic to the country, with 6 species listed as critically endangered and 2 species of gibbons ecologically extinct. Primates are an important part of an ecosystem and its absence is indicative of degradation and reduced service functions. Habitat fragmentation has become the main reason for the decline of wildlife population in China, and specifically in Yunnan, and the three Provinces comprising Giant Panda National Park.

Wildlife resources and protection in Dali demonstration Areas, Yunnan Province

Yunnan is the province with the most abundant biodiversity in China. Northwest Yunnan and Xishuangbanna are listed as priority areas for biodiversity conservation in China even in world. Dali prefecture, located in northwest Yunnan, has about 3,000 species of higher plants of 182 families and 927 genera. Dali prefecture distribution there are 52 national protected animal species, including 9 level I species including Western black crested gibbon (*Nomascus concolor*), Indochinese Gray Langur (*Trachypithecus crepusculus*), Stump-tailed Macaque (*Macaca arctoides*), and Black-and-white Snub-nosed monkey (*Rhinopithecus bieti*), 43 level II species. There are 6 primate species in Yunlong County, Dali Prefecture, including the golden monkey and the gibbon. The Yunnan golden monkey is a unique rare and endangered species in China, listed as endangered species by IUCN, only distributed in Yunnan and Tibet. Yunlong is the most southern area for its distribution having 2 population groups, with fewer than 200 individuals totally. Mutual isolation, discontinuous population distribution is discontinuous, and habitat fragmentation are serious issues. Therefore, it is significant to carry out habitat restoration and corridor construction for the flagship species as demonstration of typical important animal protection. The high variability in climatic and geographic conditions within Yunnan makes its biodiversity very fragile since habitats are consequently quite small and often endangered by growing human populations, habitat fragmentation, expanding of agricultural plantations and increasing pollution.

Giant pandas and their protection

The giant panda is listed by CITES as an Appendix 1 species with a ban on international commercial trade. According to the results of the fourth national panda survey, by the end of 2013, there are about 1,864 giant pandas left in the wild in the world, mainly in Sichuan, Shaanxi and Gansu provinces of China. There are 1,631 wild giant pandas in the Giant Panda National Park, accounting for 87.50% of the total number of wild giant pandas. The national Park's panda habitat covers 18,056 km^2, accounting for 70.08 percent of the country's total panda habitat area. Through giant panda protection programs such as the China Giant Panda Protection Program, 67 nature reserves with a total area of over 34,000 km^2 have been established in Sichuan, Shaanxi and Gansu provinces, effectively protecting 60 percent of giant panda habitats and over 70 percent of wild giant panda populations.

In addition, 17 giant panda habitat corridors have been established, and 0.33 million km^2 of giant panda habitat has been improved and restored. Habitat protection and management stations have been set up in 55 counties with giant panda distribution, basically forming a network of giant panda nature reserves.

The area of Giant Panda National Park has exceptional value for biodiversity conservation and can demonstrate how ecosystem management systems can work across provincial protected areas. Giant pandas also serve as an iconic flagship species, bringing protection to a host of flora and fauna in the southwest and northwest China. Giant Panda National Park is intended to provide stronger protection for a high number of endemic species that are distributed across giant panda range and significantly improve the ecosystem sustainability within its proposed boundaries, including at least 3,446 known plant and 641 vertebrate species that are distributed over many different ecosystem types. Habitat fragmentation and sub-optimal management regimes have resulted in 33 isolated panda populations (protected under national level-1 designation) and have prevented the panda's habitat from being managed as one contiguous area. Giant Panda National Park involves 18 local populations with 6 populations whose population is greater than 100 individuals, mainly distributed in the central Minshan Mountains, northern central Qionglai Mountains and central Qinling Mountains. Within this area there are 2 populations of 30 to 100 individuals each and 10 populations with less than 30 individuals. An analysis of population dynamics suggests that a panda population of less than 30 is at an increased risk of extinction, and therefore, the current scenario is neither sustainable nor reassuring. The Giant Panda National Park integrates 82 protected area with different management levels and different protection categories. Previously, various protected areas within the giant panda range were financed differently through a mixture of funding sources from local, provincial, and central governments based on their location and classification. The GPNP will receive increased funding support from the central government for implementation of major projects such as infrastructure development, corridor building, subsidies provision, and scientific research and monitoring.

The legal system of wildlife protection in China

China has an established robust legal system with regards to the field of wildlife protection including:

1) Laws enacted by the NPC and the NPC Standing Committee: the Wildlife Protection Law enacted in 1988, and subsequently revised four times in 2004, 2008, 2016 and in 2018 respectively[7];

2) Administrative regulations promulgated by the State Council: Mainly including Aquatic Animal Protection Regulations in 2013 and Terrestrial Animal Protection Regulations in 2016;

3) Departmental rules: including more than 100 announcements and circulars issued by the National Forestry and Grassland Administration, the Ministry of Public Security, the State Administration for Industry and Commerce, the Ministry of Agriculture and Rural Affairs, the General Administration of Customs and other state departments;

4) Regulations and legal documents of local governments.

Table 2: A summary of additional policies and legislation relevant to the scope of biodiversity, protected areas and wildlife protection

Policy	Date	Instrument
First PA established in China	1956	Dinghushan Nature Reserve was established on the proposal of the National Committee of the Chinese people's Political Consultative Conference in 1956
PAs recognised as important part of national planning	1979	Notice of Strengthening, Planning and Scientific Investigation in Nature Reserves
The National Committee for Man and the Biosphere was established	1980	The first three Man and Biosphere reserves were established.
PAs recognised as legal entities	1981	Law of Forest issued and implemented.
Regulations for the first PAs promulgated	1985	The State Council agreed to issue Management Approaches of Nature Reserves of Forest and Wildlife, Law of Grassland
PA role in ecological conservation needs recognised	1987	Principles on China’s Ecological Conservation
Need for species protection recognised	1988	Law of Wild Animal Protection
According to the national standard of the first nature reserve type, "wild animal" is one of the nine nature reserve types	1993	The State Bureau of Quality and Technical Supervision issued the principles for classification of types and grades of nature reserves (national standard)
Implementation of wildlife protection law	1992	The State Council agreed to issue regulations on the implementation of terrestrial wildlife protection
Implementation of wildlife protection law	1993	The State Council agreed to issue regulations on the implementation of aquatic wildlife protection
Rules for Nature Reserves established by State		

Rules for Nature Reserves endorsed by State Council	1994	Regulations of Nature Reserves
Regulations for Marine reserves established	1995	Management Approaches of Marine Nature Reserves
Wide range of policy issues restated and approved	1994	China Biodiversity Action Plan
Circular of enhancing wetland conservation and management	2004	General Office of the State Council (No.50)
15 policy measures for species conservation and management	2004	Notice of the General Office of the State Council on Strengthening the Protection and Management of Biological Species Resources
Species protection and utilization policy	2007	Outline of national plan for protection and utilization of biological species resources (2006-2020)
Circular of enhancing the nature reserve management	2010	General Office of the State Council (No.63)
Biodiversity conservation policies and planning	2010	China's Biodiversity Conservation Strategy and Action Plan (2011-2030) approved by the State Council
National Park pilot project launched	2015	The National Development and Reform Commission and other 12 ministries launched trials of 10 national parks across the country
For the first time, it was proposed in the outline of national planning that "Major projects for biodiversity Conservation should be implemented".	2016	Outline of the 13th Five-Year Plan for National Economic and Social Development
Legal provisions on ecological protection red lines	2018	Amendment to the Environmental Protection Law of 1988 and 2014
Wildlife Protection Law	2018	Revision to the Wildlife Protection Law enacted in 1988
About nature conservation in system policy reform	2019	General Office of the CPC Central Committee General Office of the State Council issued the Guiding Opinions on Establishing a System of Natural Protected Areas With National Parks as the Main Bod
In order to coordinate the integrated protection and restoration of mountains, rivers, fore	2020	The National Development and Reform Commission and the Ministry of Natural Resources have released “The master Plan for Major National Projects for the Conservation and Restoration of Majo

sts, fields, lakes and grasses		r Ecosystems (2021-2035) "
Decision to Comprehensively Prohibit the Illegal Trade of Wild Animals, Eliminate the Bad Habits of Wild Animal Consumption, and Protect the Health and Safety of the People.	2020	Standing Committee of the National People's Congress- instruments TBC
China Releases Position Paper of the People's Republic of China for the United Nations Summit on Biodiversity	2020	"Building a Shared Future for All Life on Earth: China in Action"

Supporting the operationalization of the regulatory landscape, China developed inter-agency government coordination mechanisms for biodiversity. In 2011, the China National Committee for Biodiversity Conservation (CNCBC), composed of 23 departments under the State Council and headed by a Vice Premier, was established to promote communication and improve collaboration among departments and coordinate biodiversity actions at the national level.[8]

Gaps

Although China has a strong wildlife protection legislation system, it is not complete. A multitude of laws and regulations continue to be issued by departments at different levels. Separate laws cover wildlife protection, forestry, marine conservation, wetlands conservation and EIA. In terms of the legal responsibility of wildlife protection, it is also difficult for law enforcement bodies to cooperate with each other due to them being decentralized, horizontal and vertical. In particular, technical standards and a technical specification system need to be enhanced to reduce the lack of technical support in the design standards, type of ecological corridor construction, construction planning and technical specifications. In terms of habitat restoration, there are also a lack of technical standards and specifications for natural restoration, biological measures and engineering measures. In addition, infrastructure construction projects, such as high-speed rail, expressway, dam, reservoir, ports and other facilities, often occur in the surrounding areas and even within the protected areas. However, lack of technical guidance on how to ensure the nature-based infrastructure constructions and minimize the impact on wildlife. China's existing legislation creates challenges to conserving the country's natural resources and protecting its biodiversity. Chinese law remains unsuccessful in pursuit of these goals due to inadequate public participation, implementation and enforcement problems, and legislative prioritization of economic-as opposed to ecological-values. There is no clear lead agency in control of all areas of conservation, and no clear line of authority on environmental law matters, which creates significant an atmosphere of confusion and tension between national and provincial actors and institutions. For example, according to the Regulations on Nature Reserves, both the forestry and environmental protection administrations have authority over nature reserves management. Most importantly from a landscape perspective the "integrated management" responsibility and the responsibilities of the other departments are not clearly defined. Up to recently biodiversity legislation and policies in China have been driven-and greatly influenced-by existing international biodiversity law. Although China's outward commitment to international law is laudable, in the context of conservation, the country's domestic conservation strategy and institutional and professional capacity lack long-term viability because it has become overly dependent and reliant on international financial resources and technical support.

Establish a nature conservation system with national parks as the main body

In 2019, the General Offices of the CPC Central Committee and the State Council issued the Guidelines on establishing a system of nature reserves controlled by national parks. Nature reserves currently cover more than 18% of the land area.

"Guidelines" is the overall goal of, built with Chinese characteristics in order to national park as the main body of the natural reserve system, to promote science and all kinds of natural protected area set, to establish the natural ecosystem protection mode of new mechanisms and new system, build a healthy and stable, efficient and natural ecological system, to safeguard national ecological security and build a foundation to realize sustainable economic and social development, to the construction of a rich and powerful democratic civilization harmonious beautiful ecological socialism modernization power laid foundation. The development goals of National Park in 2020, 2025 and 2035 were raised.

In 2015, the National Development and Reform Commission, together with 13 other departments, issued the pilot program for the establishment of a national park system, which selected 10 national Protected Areas for pilot construction. The giant panda National Park is also one of the pilot projects, covering a total of 2,713,400 hectares in 14 sub bureaus in Sichuan, Shaanxi and Gansu. In September 2020, the state has organized the acceptance for 10 pilot projects, "The Giant Panda National Park" will be officially established while it completes the acceptance in 2020.

Alternatives

The government restructuring implemented in March 2018 unified the previously decentralized functions and responsibilities of protected land management into one department, the Ministry of Natural Resources. The newly formed Ministry of Natural Resources oversees the development and protection of China's natural resources, establishes a space planning system, establishes an ecological compensation system and manages the national system of protected land. The newly established National Forestry and Grassland Administration is responsible for the management of nature reserves and national parks throughout the country and will continue to be responsible for the protection and management of wildlife throughout the country. In order to strengthen the protection and management of wild animals and plants, the National Forestry and Grassland Administration has, in its institutional reform, established a special division of Animal and Plant Protection and a Division of Protected Areas, and has made wildlife protection one of its priority areas.

Like the central government, provincial government agencies have also been reformed, and local conservation areas and wildlife have been relegated to local forestry and grassland bureaus intensifying the protection of wild animals and strengthening wildlife protection legislation and law enforcement. Natural reserve management and ecological monitoring of wildlife has utilized, in parts of the nature reserve and national park, some new techniques and facilities, such as unmanned aerial vehicle (UAVs), infrared camera and a mobile terminal APP etc.

Conservation management and wildlife conservation are facing a new opportunity, and the implementation of this project will drive this opportunity to become a reality. Targeting the existing problems in wildlife protection, this project sets the content of the project framework as three components as follows:

1) The first component is to establish a coordination mechanism for wildlife protection and formulate relevant technical standards and guidelines for strengthening wildlife protection at the level of central and provincial governments;

2) The second component is to carry out demonstration in Yunnan and The Giant Panda National Park. Through the establishment of ecological corridors, the key protected wildlife populations are linked together to increase the survival and reproduction capacity of the wildlife populations. Meanwhile, through livelihood substitution, the demonstration is provided for the economic development of the communities around the nature reserves;

3) The third component is to strengthen the capacity building of government departments and protected land management institutions, through training, technology and information exchange; and to promote private sector participation through advocacy and education to raise awareness among stakeholders.

Baseline information on the PA system in China

In 2019, the General Offices of the CPC Central Committee and the State Council issued the Guidelines on establishing a system of nature reserves controlled by national parks. Nature reserves currently cover more than 18% of the land area.

The overall goal of the "Guidelines", built with Chinese characteristics, is to create a national park as the main body of the natural reserve system, to promote science and all kinds of natural protected area sets, to establish the natural ecosystem protection mode of new mechanisms and systems, build a healthy and stable, efficient and natural ecological system, to safeguard national ecological security and build a foundation to realize a sustainable economic and social development foundation. The development goals of National Parks in 2020, 2025 and 2035 were included in these Guidelines.

In 2015, the National Development and Reform Commission, together with 13 other departments, issued the pilot program for the establishment of a national park system, which selected 10 national Protected Areas for pilot construction. The Giant Panda National Park was one of the pilot projects, covering a total of 2,713,400 hectares in 14 sub bureaus in Sichuan, Shaanxi and Gansu. In September 2020, the state has organized the acceptance for 10 pilot projects, "The Giant Panda National Park" will be officially established.

Baseline information relevant to the proposed demonstration sites

By 2016, China had established 2,740 nature reserves which cover 14.88% of its land area. In addition, China has 962 scenic areas (national and provincial levels) with an area of 19.56 million ha, about 2% of its land area. The total protected area (PA) of terrestrial ecosystems in China had reached 162.44 million ha by the end of 2016 which accounts for 16.9% of its land area, practically reaching the 17% Aichi target. Nearly 9,000 protected areas are included in the national PA system, broken down among 12 types as outlined below in Table 3.

Table 3: Types and numbers of Protected Areas in China

Type		Total Number	Number at National Level
1	Natural Reserves	2,740	446
2	Scenic and Historic Areas	962	225
3	Forest Parks	3,101	791
4	Geological Parks	240	240
5	Wetland Parks	727	429
6	Marine Special Protected Areas (including marine parks)	56	56
7	Water Scenic Spots	588	588
8	Mining Parks	72	72
9	Germplasm Resources Protected Areas	450	450
10	Closed Protected Areas of Desert Land	10	10
11	National Parks (pilot)	10	10
12	Desert Parks (pilot)	10	10
	Total:	**8,966**	**3,327**

Source: State of the Environment Report 2017, Ministry of Environmental Protection (now MEE)

Table 4: Baseline Related Project Information

Protection Area and Project Title	Duration	Funding Institution
WWF Qinling Giant Panda Focal Project	1982-ongoing	WWF
EU-China Biodiversity Programme (ECBP)	2009-2014	EU
Yunlong Tianchi National Nature Reserve in Yunnan Forestry Reform and Development Project funded by central financ e in 2017	2017-2018	MOF

Yunlong Tianchi National Nature Reserve in Yunnan Forestry Reform and Development Project funded by central finance in 2018	2018-2019	MOF
Yunlong Tianchi Forest Restoration Scientific Research Monitoring Project	2017.01-2022.12	Shan Shui Conservation Center, GAC Toyota
Ant Forest Yunlong Yunnan Snub Nosed Monkey Habitat Restoration and Corridor Construction Project of Ant Group	2019.01-2022.12	Yunnan Green Environment Development Foundation, TNC, Ant Group
Ya'an Administration Branch of Giant Panda National Park: Protection and Utilization Facilities Construction Project in Tianquan County	2019-2020	MOF
Conservation of Small Population of Giant Panda, Public Education, Community Conservation and Development Projects	2017-2021	TNC
Foping Giant Panda Habitat Restoration and Field Patrol Monitoring Project	2018-2022	China Green Committee
Motianling Social Public Welfare Protected Area Project	2011 to date	Sichuan Paradise International Foundation
Daxiangling PA Monitoring in areas for rewilding training and rehabilitation and controlling disturbance factors for giant panda Project	2018-2019	Chengdu Research Base of Giant Panda Breeding
Natural forest protection project of Giant Panda National Park (phase 2)	2011-2020	MOF
Conversion Farmland to Forest Project of Giant Panda National Park	2014-2020	MOF
Cultural tourism promotion project of Giant Panda National Park	2017-2020	MOF
GEF-5 CBPF-MSL wetland PA programme	2013 - 2019	NFGA
GEF-6 China's Protected Areas System Reform (C-PAR program)	2019-2025	MEE
GEF-7 Flyways Project (submitted)	2021-2027	NFGA

[illegible]	[illegible]	[illegible]
GEF-financed Project "A Landscape Approach to Wildlife Conservation in Northeastern China"	2012 to date	NFGA

These past and ongoing programmes and projects have reinforced one of the major gaps in China, being no workable landscape scale models beyond PAs, with no coordination mechanism and inadequate cross-sectoral policies and guidelines for acceptable development across threatened landscapes. With respect to Giant Panda National Park, it is important to note that with an area of 2,713,400 ha, 578,700 ha of this is still unprotected. In spite of investments made through GEF financed initiatives and several other internationally-funded donors, there is a need to supplement a National Park connectivity approach with complimentary measures to link landscapes. By no means should there be collision in mainstreaming wildlife considerations across landscapes given the degree of variation in needs, characteristics, and landscape composition within the area. While there may be projects, such as C-PAR, which also propose activities related to enhanced connectivity within Giant Panda National Park, including a national level gap and connectivity analysis, these are largely focused on ensuring that the protection of globally significant biodiversity is optimized within the National Park system in China. The focus on the present project is a landscape approaches for the conservation of threatened wildlife beyond PAs and therefore, the supporting policy environment and guidelines at landscape level would be entirely different. This will be a significant value added to existing PA coordination mechanisms being proposed through parallel projects in China (i.e. C-PAR), but will be complimentary given its wildlife and landscape focus in the context of sectoral planning and which continues to be a gap that has not been addressed to date. Therefore, there is ample room for complementarity given the diverse set of needs, habitats, problems and nuanced related to the development activities and communities which operate both within and around the park.

The landscape approach with multi-sector wildlife specific policies and guidelines is different than the approaches being put forward by other GEF projects in China as follows:

· The C-PAR Programme covers a total of six child projects, is timely, providing an opportunity to support the Chinese authorities in ensuring protection of globally significant biodiversity is expanded under the new NP system. Establishment of the NP system is the cornerstone of the major PA reform in China, including development of a National Park Law that would consolidate, and essentially supersede, the current fragmented set of laws and regulations associated with protected areas, and establishing a new PA management agency, integrating the relevant management functions of protected areas so that a unified management responsibility can be exercised on NP system.

Technical assistance through the GEF funding will feed into the PA reform processes, integrating international best practice into legislative and institutional frameworks, introduction of advanced policies and guidelines for increasing the representativeness of the NP system and enhancing management effectiveness, building institutional capacities, and improving financial sustainability, with an increase of at least 30% in available PA finances through diversification of funding sources, improved efficiency in access and utilisation of available funds, broadened participation through concession arrangements and value-based eco-compensation appropriations.

· The FLYWAY Project Alternative responds to the development challenge by systematically addressing the barriers associated with: 1) the absence of a strategic approach towards migratory waterbird conservation including inadequate representation of critical breeding, staging and wintering sites in the PA system, and insufficient financing and sustainable financing for effective PA management; 2) limited integration of flyway wetland conservation and needs into the policies, plans and operations of other sectors, and a lack of technical mechanisms and skills to support wetland-compatible co-management at landscape and site levels; and 3) lack of awareness of the value of wetland ecosystem services and management needs, and limited knowledge and information exchange on waterbird population status and best practice management techniques for key flyway sites.

· The WETLAND Programme did not ascribe to a particular "integrated approach" in its Project Document, but the specific methodology can be considered one of Integrated River Basin Management (IRBM). As part of this initiative, the Chizhou municipal government established the Chizhou Shengjin Lake NNR Managment Committee at the basin level, meanwhile, the municipal govt. established a Joint law enforcement mechanism (Law: Regulations of the People's Republic of China on Nature Reserves).

1a (3) the proposed alternative scenario with a brief description of expected outcomes and components of the project;

In order to remove the aforementioned challenges and barriers, the objective of the project will be to safeguard key threatened and iconic wildlife in China through cross-sectoral engagement, community participation and innovative management technologies across landscapes. This will be made possible through supportive cross-sectoral policies and comprehensive guidelines approved by a Special Wildlife Coordination Group (SWCG) created under the National Biodiversity Commission, the prioritization of restoration and ecological corridor enhancement techniques at key sites and by incorporating frontier technologies and knowledge management innovations in partnership with the private sector, academia and local communities. The alternative scenario involves a substantively more integrated and participatory approach to wildlife planning and management, whose value chain includes all sectors that have touch points with biodiversity at the national, provincial and local level. This also includes local communities who are both custodians of and contributors to solutions through traditional knowledge, the private sector and academia through the deployment of approaches and technologies, and society at large, who are instrumental in the equation through enhanced consciousness of ecological civilization and a deeper appreciation of biodiversity values of threatened species and the interdependencies of their habitats with ecosystem functions around the world.

Against the backdrop of accelerated global biodiversity loss and the global impact of COVID-19, the targeted end state of the project is to use the recovery as an opportunity to build back better by ensuring that going forward, inter-sectoral landscape planning not only takes wildlife needs and their habitats into account, but prioritizes it. Governments around the world are actively preparing stimulus packages expected to pour trillions of dollars into initiatives to help their revive their economies and recover from the impacts of COVID-19. These efforts offer a once-in-a-lifetime chance to scale up support for critically needed solutions to help forests, landscapes and the most threatened habitats to remain intact and to continue providing benefits in a responsible and sustainable way. And there has never been a point in time that the interplay between the intactness of ecosystems, unchecked economic growth and impacts on human health have been so apparent. The risk is however, that in governments' haste to reverse the worst global downturn in recent memory, they will turn to quick fixes. Without new approaches and models - including those which promote intactness of landscapes - we risk a business as usual scenario that will only accelerate environmental degradation just when we can least afford it. The unprecedented cooperation for a vaccine and the effective leveraging of technology and data innovation has shown that society is capable of radical change when the stakes are high. The project is proposing a new model that

responsible sectoral development is possible and will take steps during the project's lifespan for more informed and harmonized decisions regarding China's natural resource endowments to protect and restore nature, as well as human health. This will be supported by creating a supportive policy and regulatory environment with broad participation, by investing in community-led resilience and encouraging the private sector to take a more active role in the scaling up of solutions, including technological solutions, which along with the project outcomes can offer a scalable model both nationally and globally.

The project's vision is to build on the baseline scenario to maximize the benefits from a more holistic approach to biodiversity conservation across multiple use landscapes through an integrated and comprehensive set of policies, regulations and guidelines prioritizing actions for threatened wildlife and the establishment of a SWCG. This aspiration is aligned with China's ambition in its blueprint *"Building a Shared Future for All Life on Earth: China in Action"*, of ensuring the strictest regulations and laws, together with novel approaches to be applied in protecting the environment and that an all nation effort is required for global ecological conservation success. It will enhance existing concepts - and propose new ones - around restoration and corridor creation by deepening understanding around site suitability, application of remedial measures, including the informed deployment of innovative technologies and traditional knowledge to improve management effectiveness and longer term horizon planning and monitoring to generate multiple benefits.

The approach to be taken in the roll-out of activities is participatory in nature through mutually supportive partnerships with other projects, initiatives and sectors, leveraging cost effective synergies with existing vehicles of biodiversity mainstreaming in China in the context of broader landscape approaches to wildlife conservation. This shall be achieved through the three complimentary and inter-related components. There will also be clear dependencies both within and between Components, outcomes and outputs. It is important to note the descriptions of the work packages in the component narrative will be implemented in a dynamic and iterative manner and therefore should not be interpreted as being a linear process:

Component 1

Mainstreaming wildlife conservation into integrated landscape planning through enhanced intersectoral coordination and supportive policy environment

At the core of Component 1 is the creation of a SWCG under the National Biodiversity Commission. There is currently a gap within the focus of this entity since it does not necessarily take an integrated landscape approach nor has it fully internalized the special needs of iconic and threatened species across these landscapes in its decision making. To close this gap, the proposed scope of this SWCG will be to:

1) Oversee and coordinate actions and projects on wildlife conservation;

2) Resolve conflicts between the sectors pertaining to wildlife conservation in production landscapes;

3) Provide a mechanism for consultation on and harmonization of appropriate policies and planning on wildlife conservation and sustainable utilization to happen, including those pertaining to specific guidelines on green infrastructure and multi-use-sector ecological corridor establishment as examples

The scope of this component includes four work packages:

Work Package 1: A SWCG will be created under the National Biodiversity Commission in Component 1 (output 1.1.1) and will improve on the following incentives and policies (output 1.1.2) under Priority Action 1 of China's NBSAP tailoring them to wildlife considerations in the context of landscapes that will then be applied, tested and refined at site level as part of Component 2:

· Establish, improve and enhance pricing, taxation, credit, trade, land use and government procurement policies related to biodiversity conservation and sustainable use, and prioritize projects that support wildlife conservation and sustainable use to inform price, credit and taxation terms;

· Improve ecological compensation policies, expand their coverage and increase investment(s);

· Develop incentive policies to encourage reuse of biological resources and provide policy support for the development of technologies producing alternatives to usage of biological resource inputs in the production of goods and services.

Work Package 2: The SWCG is expected to adopt a comprehensive set of guidelines (output 1.1.3) for ecological corridor establishment prioritizing wildlife needs that will be informed by international experiences and best practice. These will emphasize a wide range of levers and tools to support conservation efforts, including guidelines/gap analyses, lists of wild animals to be considered for enhanced protection under China's wildlife protection law, wildlife habitat definition standards and zoning plans, community engagement sessions on livelihoods, intersectoral dialogues, sector specific guidelines targeting agriculture, infrastructure, extractive industries, tourism and development sectors operating in close proximity to sensitive habitats. As part of the guidelines, the national Environmental Impact Assessment system will also be augmented to include a Wildlife Impact Assessment chapter, which will also be applied as part of Component 2 in the context of sectoral activities in sensitive habitats across. These tools will be used to inform how and where remediation work is undertaken as part of Component 2 as well as to underpin the strategy and actions plan(s) also envisioned for Yunnan and for Giant Panda National Park (outputs 1.2.1 and 1.2.2).

Work Package 3: The strategies and action plans for Giant Panda and Yunnan (outputs 1.2.1 and 1.2.2) will be implemented at site level as part of output 2.2.1 / 2.2.2 and 2.3.1 / 2.3.2 and as part of livelihood activities envisioned in output 2.4.1 / 2.4.2, together with specific activities to be undertaken by each targeted sector, while also being informed by the comprehensive set of guidelines developed. This will give an opportunity to test out the tools and levers for further refinement and therefore, there will be a dynamic feedback loop with output 1.1.3 as well as technology enablers articulated in Component 3 to ensure that the guidelines have been tried and tested, are delivering their desired impact and can be applied at scale.

Development of the strategies and action plans will work through the two provincial committees anticipated to be established to coordinate the efforts of relevant authorities, including agriculture and rural areas, natural resources, forestry and grassland, ecological environment, transportation, culture and tourism to implement key measures during the project. Academia and the private sector will also be invited to participate in Provincial committees; a first in China. This is expected to deepen the harmonization of the authorities to enhance primate protection measures and status. At the national level a protection strategy and accompanying plan covering more than 2.7 million hectares of national parks and surrounding communities will be developed for Giant Panda National Park, including 14 branches across Sichuan, Gansu, and Shaanxi Provinces. Through sectoral coordination and linkages made with other vehicles such as the CNCBC, the protection of wild animals such as giant pandas will be mainstreamed in the planning and work of relevant authorities and local governments.

Work Package 4: Component 1 will also build capacity through the development of a programme (outcome 1.1.4) to be delivered across the six sectors of the SWCG (output 1.1.1) targeting 18 senior government staff to help internalize wildlife considerations and biodiversity values within multi-use landscape planning. These will explicitly target and meant to benefit the national and provincial level government apparatus.

The success of the project and its contribution to a workable landscape approach rests on successful habitat restoration and connectivity efforts and therefore, the viability of these efforts need to be underpinned by strong science and sound decision making, and made possible by supportive policies. As such, dependencies between mainstreaming and site level approaches will need to be revisited often to ensure they are mutually reinforcing to promote continual refinement and translate into successes on the ground. The project will naturally build in close cooperation with other projects such as China's Protected Area System Reform Programme (C-PAR) as part of its modus-operandi and explore financial dimensions of biodiversity mainstreaming by exploring innovative financial models and solutions to make sure outcomes are sustainable post-project. The desired end state associated with this component is enhanced knowledge and capacities to engage in cross-sectoral mainstreaming within multiple use landscapes with the necessary governance and supportive policies in place to be scaled.

Component 2

Demonstrating integrated landscape management approaches and innovative tools in key endangered globally important wildlife habitats

This component will consist of site-based management effectiveness at model protected areas and their surrounding landscapes, that will embrace local community participation, as well as enhance livelihood opportunities through alternative revenue streams. It will operate mainly at the site-level in two provinces of China, Yunnan and Sichuan; however, since Giant Panda National Park also covers a small amount of territory of Shaanxi and Gansu Provinces, the demonstration site may also extend to these two provinces. Activities aim to enhance the protection, rehabilitation and management of key habitats for key species including the Giant Panda, and four species of endangered primates, and to address barriers related to insufficient management effectiveness and mainstreaming of conservation with the practices of other sectors at site-level. The demonstration areas for this project will consist of Giant Panda National Park, Yunnan Yunlong Tianchi National Nature Reserve, Caojian plantations in Yunlong County, with the goal to build capacity and to increase the METT scores at 1 national park with a category 2 designation; 1 Nature Reserve with a category 1 designation; and 1 PA with a category 6 designation, with a total area covering 2,749,408 hectares[9] (Outcome 2.1).

Work Package 5: Armed with supportive policies, a comprehensive set of guidelines, training and action plan for both Giant Panda National Park and Yunnan, site-based landscape restoration and connectivity efforts under Component 2 (Outputs 2.2.1, 2.2.2, 2.3.1 and 2.3.2) will be better equipped and primed for success to demonstrate and refine these tools. There will be a feedback loop back to Work Packages 1 through 4 above. Odds of long-term sustainability will be improved by engaging local communities through co-management agreements[10] and emphasis on alternative income streams to reduce pressures on natural resources in sensitive landscape habitats. Linkages to both academia and the private sector will be made to embed ownership within ongoing research and development in this space. This will lead to a landscape approach model with support and ownership from communities, academic institutions and the private sector that can be applied at scale.

As part of output 2.1.1, a training and a capacity building plan will also be developed and delivered at the site level to strengthen park rangers' and park management staff to augment their capacity and preparedness to engage with external stakeholders and different sectors to help them internalize wildlife considerations and biodiversity values within multi-use landscapes, as well as to be operationally effective in buffer areas. There will be training delivered in partnership with the private sector in the context of applying frontier technologies and innovative knowledge management solutions at site level to solve issues around landscape approaches to wildlife conservation such as remote monitoring and application of DNA technologies among others.

Efforts at pilot sites will include connectivity between patches of key protected wildlife habitats, covering at least 10,100 ha, targeted for improvement outside of PAs through the creation of ecological corridors (Outcome 2.2). The project will focus on three ecological corridors to link key primate habitats, including Black-and-white Snub-nosed monkey (*Rhinopithecus bieti*) in Yunlong County, Dali, Yunnan established to link the two groups of R. bieti in Mt. Lasha and Mt. Longma, and the group of R. bieti in Tianchi and in Mt. Longma, with a total area of approximately 4,100 ha. supported by a cross-sectoral strategy and action plan. Efforts for isolated panda habitats in Giant Panda National Park will form one adjoining management zone by establishing a protection system of 2 ecological corridors with a total area of approximately 6,000 ha. prioritizing the 578,700 ha that currently remains unprotected. This will be underpinned by a cross-sectoral strategy and an action plan covering 2.7 million hectares of national parks and surrounding communities across 3 provinces.

During the project's implementation, at least 2,200 ha of key wildlife habitat will be enhanced through restoration measures (Outcome 2.3) using either nature-based or traditional solutions to connect high conservation value forest/wildlife corridors. 200 hectares of Western black crown gibbon habitat in Dali (Yunlong County), Yunnan will be restored. 2 or 3 targeted panda habitats (TBC during PPG), covering 2,000 ha, will be restored in Giant Panda National Park through biological/ecological engineering and other technical measures as well as incorporating the traditional knowledge and practices of Jiang, Tibetan and Han ethnic communities.

In parallel with site-based restoration efforts, Component 2 will embrace Gender responsive- community-based co-management to provide socio-economic benefits to the local communities. At least 10,000 individuals will directly benefit from sustainable natural resource management and the livelihood improvement approaches with an increase of 15% in average economic benefit (at least 40% of beneficiaries are women). The efforts will include ecological goods and services, including ecotourism, certification schemes and organic farming generating alternative income streams (output 2.4.1) for the local communities. Alternative livelihood cooperatives will be established (output 2.4.2) in over 300 households with a gender representation of 40 % women.

While operating at the national level, the SWCG will also facilitate efforts at the provincial level towards a Yunnan Primate Conservation Strategy and Action Plan, and to help create the necessary enabling conditions to link landscapes across Giant Panda National Park and surrounding prefectures. The desired end state is for remediation activities, including restoration and corridor creation, to be tested together with supporting sectoral policies to identify a robust model and project best practices that can be replicated within China and globally.

In terms of complementarity, site level activities will build on the progress and early successes under C-PAR, including the national gap and connectivity analysis, which will inform the selection of ecological corridor sites; the collaborative PA governance guidelines, which will steer the way in which the cross-sectoral coordination mechanism under component 1 will be shaped; and, the improvement of the regulatory framework resulting from the ongoing NPAS

reform, which will create a clearer landscape for wildlife conservation and management inside and outside the PAs.

Table 5: Overview of PAs within targeted landscapes in the proposed demonstration areas

Name	Area (ha)	Key habitats	Global biodiversity significance	Ecological stresses & threats	Governance	IUCN Category
1. Giant panda National Park	2,713,400 ha	Forest ecosystem PA. The area of giant panda habitat is 1.8056 million hectares, accounting for 70.08% of the national giant panda habitat area.	The habitat of giant pandas covers an area of 1.8056 million hectares, accounting for 70.08% of the country's total giant panda habitats. There are 116 wild animal and 35 wild plant species of national-level protection. The giant panda's habitat is rich in biodiversity, with more than 8,000 wild animals and plants distributed in the same region. It is of global significance for conservation and also important as a conservation umbrella. The Sichuan Giant Panda Sanctuary World Natural Heritage Site is one of the global biodiversity hotspots. It is also a key area of China's important ecological security barriers, located within the Loess Plateau-Sichuan-Dunnan area of the "two screens and three belts" of the national ecological security strategic pattern.	Giant panda habitat is fragmented into 18 local populations by natural terrain such as mountains and rivers, roads, etc.	In January 2017, the system pilot of the Giant Panda National Park was officially launched, and the acceptance was planned to complete in 2020. The Giant Panda National Park integrates 82 protected area with different management levels and different protection categories (forests, wetlands, geology, scenic spots, etc.), and employs more than 3790 protection staff in total.	2: National Park: managed mainly for ecosystem protection and recreation
2. Yunnan	14,4	Forest ecosystem PA.	The Yunnan snub-nosed monkey, a rare and endangered species in the world and a Class I protected anim	A large number of Yunnan pine is distributed. The potential risk of fore	The nature reserve was established in 1983, one of the earliest ones in Yunnan Province. It was promoted to a national nature	1: Strict Nature Reserve/W

Yunlong Tianchi National Nature Reserve	75 ha	In the north subtropical monsoon climate region, Black-and-white Snub-nosed monkey, forest musk deer, Torreya yunnanensis, Taxus chinensis and other rare and endangered wildlife inhabit	al in China, is distributed here as the southernmost and most specialized population of this species.	st fire is high and the pressure of fire prevention is huge. There is also impact from human activities - there are still residents in this area	reserve in 2012 and joined the China Biosphere Conservation Network (CBRN) of UNESCO Man and the Biosphere Programme in 2019. 33 staff are currently employed.	ilderness Area: managed mainly for science or wilderness protection
3. Caojian plantations of Yunlong County	21,533 ha	Forest ecosystem PA. In the north subtropical monsoon climate region, Western black crested gibbon, forest musk deer, Assamese Macaque,Torreya yunnanensis, Taxus chinensis and other rare and endangered wildlife inhabit	The northernmost and the most distinctive specialized population of West Yunnan black crested gibbon can be found here. It is a ClassI protected animal in China and considered a rare and endangered species in the world.	Coniferous species such as Yunnan pine, Armand pine, Himalayan hemlock can be found here. The pressure of forest fire prevention is relatively high. There are many villages close to and frequent human activities in this area.	Caojian Forest Farm was established in 1962 and is a public welfare forest farm. As a public institution, it now employs 35 staff. In the Chinese context the Caojian Plantation of Yunlong County does not formally belong to the PA network, however, it could be classified as IUCN category 6, and is particularly adapted to the application of a landscape approach.	6: Managed Resource Protected Area: managed mainly for the sustainable use of natural ecosystems
Legend	IUCN Categories: 1: Strict Nature Reserve/Wilderness Area: managed mainly for science or wilderness protection 2: National Park: managed mainly for ecosystem protection and recreation 3: Natural Monument: managed mainly for conservation of specific natural features 4: Habitat/Species Management Area: managed mainly for conservation through management intervention 5: Protected Landscape/Seascape: managed mainly for landscape/seascape protection and recreation					

	6: Managed Resource Protected Area: managed mainly for the sustainable use of natural ecosystems

The project is putting forward a landscape-level model that will take a holistic approach to landscape management, aiming to reconcile the competing objectives of wildlife conservation and sectoral activities across landscapes through supportive polices and guidelines (which have been tested and refined), with special attention to ecological corridors, co-management opportunities, threatened / fragmented habitats in and around PAs, and intersectoral coordination. The model will be informed by both international experiences and internalize the unique characteristics of the Chinese context, and will be accelerated by advances in technologies and knowledge management and further amplified by offerings of both academia and private sector R&D. This approach is also consistent with conclusions drawn from recent studies suggesting a wider landscape approach or "area-based conservation" as it is also known, will be essential to meeting PA targets and will be the cornerstone of conservation objectives long into the twenty-first century.[11]

As recent events have also shown, the emergence of zoonoses must be viewed through a multi-disciplinary and multi-sectoral lens, as advocated through this project. The involvement of public health Subject Matter Experts (SMEs) in the SWCG and of academia and the private sector in the definition of use cases can help the project with the surveillance of 'high-risk' wildlife from a zoonotics perspective underscores that by its very nature Component 2 is also an investment in human health. The health and social impacts associated with the global pandemic have made it clear we need a more sustainable bridge between human environmental and sectoral activity. Preparedness and mitigation efforts through the restoration of habitat and ecosystem services are expected to have a net positive effect on preventing future pathogens from spreading into human populations.

Component 3

Deploying frontier technologies and innovative knowledge management solutions for wildlife conservation and landscape planning

The vast amount of biodiversity and wildlife in China provides a virtually infinite source of inspiration and opportunity for problem-solving through technological innovation and knowledge sharing. Component 3 will play both a unifying and amplifying role in the project across components by integrating different strands of the project and documenting solutions through the utilization of advanced technologies, enhance the conservation status of species and facilitate the monitoring of and planning for threatened and iconic wildlife. While the focus will certainly be on technology-aided opportunities to improve monitoring and knowledge of key iconic and threatened wildlife, it also serves as the basis for crucial institutional innovations through automation to enhance information sharing and to underpin national spatial planning and management at the landscape level.

Work Package 6: To engage people in biodiversity and wildlife issues across landscapes, one must provide the opportunity for enhanced understanding that empowers individuals to make choices, internalize shared responsibilities and take action based on sound science and reliable recommendations. Policies therefore, need to be buttressed by a robust sustained public awareness to foster deeper appreciation and understanding of issues. Educational programming, media, exhibitions, and other means of public outreach (outcome 3.2.1) should build on the welcome increase and build in hooks to public interest in global biodiversity loss and wildlife issues by demonstrating the interplay of various environmental disruptions and connections to human health. In the case of wildlife in landscapes, the importance of species in providing ecosystem services, natural beauty and pleasure, and sustaining human lives is a message that requires constant attention and recrafting to impact diverse audiences. Component 3 therefore, is expected to have both an amplification and enhanced awareness effect. Advances in technologies and up-and-coming innovations from the private sector show promise for wide application for effective

wildlife monitoring and real-time situational awareness, especially in difficult to access terrain[12] (outcome 3.1.1). The technology dimensions in Component 3 will compliment Component 2 to enhance efficiency, delivery effectiveness and deeper understanding of species, including through the use of advanced DNA technologies[13] (outcome 3.1.3). Additionally, innovative knowledge management and data solutions can connect disparate data sets to enhance situational awareness and for more informed decision (3.1.2) making and will feed into further refining thresholds for the policies and guidelines in Component 1. International and national events linked to China's COP15 Presidency and post-2020 global biodiversity framework will be entry points, as will the proposed cross China technology competition (outcome 3.3.2).

A major thrust of Component 3 will be knowledge management, resulting in a range of national and global public awareness campaigns and workshops in the context of COP15 Presidency, the post 2020 global biodiversity agenda, as well as the consolidation of best practices in mainstreaming through lessons learned disseminated through project specific websites and platforms, together with cooperation with academia (such as Beijing Education Academy) and the private sector to enhance global awareness of wildlife protection.

Taken together, Component 3 will lead to improved institutional capacity to coordinate cross-sectoral interventions, monitor and disseminate project results impactfully, and package them in a manner that provides compelling arguments for the application of improved models of landscape approaches for key threatened and iconic wildlife, as well as identification of entry points for south-south exchanges for restorative and collaborative actions.

Theory of Change

The ultimate impact of this project is to contribute to the conservation and sustainable use of globally iconic and threatened wildlife through improved landscape approaches made possible through cross-sectoral mainstreaming. The intermediate impact is an improvement in community-level custodianship and institutional-level wildlife management decision-making based on a supportive policy environment and comprehensive guidelines for the conservation of wildlife across threatened habitats and a better understanding of the impact of human actions on ecosystems.

The global pandemic is the result of a degradation in the relationships between human systems and wildlife. There has never been a point in time that the interplay between the intactness of ecosystems, unchecked sectoral growth and impacts on human health have been so apparent. With the the backdrop of the global COVID-19 pandemic recover efforts, the hope is to build back better through a sustainable bridge between environmental and sectoral activities, by ensuring that going forward, multi-use landscape planning not only takes wildlife needs and their habitats into account, but prioritizes it.

To ensure that this long-term outcome is met, there are two main preconditions and several key assumptions:

1) Central level government is able to create supporting conditions through enhanced policies and comprehensive allowing for the mainstreaming of wildlife conservation across sectors to take root;

2) More robust landscape models are tested and developed together with community-level commitment towards managing wildlife and their threatened habitats.

Key assumptions underpinning the Theory of Change include the following:

· It is assumed there will be a continuity of political commitment and prioritization of ecological arguments over narrow economic ones;

· It is assumed there will be strong multi-sectoral and inter-agency partnerships and collaboration;

· It is assumed that ministries are willing to apply guidelines to development and sectoral planning;

· It is assumed that co-management arrangements are agreed to with local communities and that they will be direct beneficiaries of enhanced wildlife conservation across landscapes;

· It is assumed that policies and wildlife impact guidelines are enforced and illegal activities curtailed.

To address these two preconditions, national-level policy needs to be designed in such a way that it provides practical support for a more sustainable approach to sectoral and local-level landscape management planning and decision-making. To achieve this, national level policy must be based on an understanding of how different sectors and local communities perceive environmental risk and changes to biodiversity. These perceptions along with various economic trade-offs, social and cultural factors, will strongly influence how sectors and local-level landscape planning and management decisions are made.

The main technical challenge will be to provide sectors with compelling arguments to elicit compliance and changes in behaviour in a manner that makes economic sense and that they are able to internalize trade-offs based on ecological benefits rather than simply economic ones alone. Local communities are also instrumental agents of change within the project and need to be equipped with the means to evaluate and adapt to putting less pressure on landscapes and wildlife, as well as need to fully appreciate the benefits of enhanced landscape connectivity and incentivized through economic safety nets. This will require finding innovative ways in which to bridge the gap between scientific knowledge and technology, with locally-specific experiential knowledge coupled with traditional practices. To do this, a deep collaboration is required with carefully facilitated conversations to bring out the richness of local technical knowledge, as well as to share how frontier technologies can be an enabler to get them involved in co-management activities. Coupled with training on alternative income streams, the shared-learning process that results will aim to ensure that the jointly agreed project activities to reduce wildlife and landscape risks make sense in the context of the knowledge and the everyday lived-experiences of local people. The result will be a better understanding of the likely consequences of human interactions with ecosystems and the social norms that drive decision-making processes by both sectors and local communities. This improved understanding will be the foundation for better decision-making that effectively reduces ecological pressures on threatened and iconic wildlife.

There are three desired end states envisioned as part of the project per component as follows:

· **Component 1:** Enhanced knowledge and capacities to engage in cross-sectoral mainstreaming within multiple use landscapes with the necessary governance and supportive policies in place to be scaled.

· **Component 2:** Validation of a landscape-level model that will take a holistic approach to landscape management, aiming to reconcile the competing objectives of wildlife conservation and economic activities across landscapes through supportive and fully tested polices and guidelines, with special attention to ecological corridors, co-management opportunities, threatened / fragmented habitats in and around PAs, and intersectoral coordination.

· **Component 3:** Improved institutional capacity to coordinate cross-sectoral interventions, monitor and disseminate project results impactfully, and package them in a manner that provides compelling arguments for the application of improved models of landscape approaches for key threatened and iconic wildlife, as well as identification of entry points for south-south exchanges for restorative and collaborative actions.

The above desired end states are underpinned by the following principles and causal pathways:

· ***Operate at a Landscape Scale***: All interventions and activities ought to be framed and should occur through a multisectoral lens within a wider landscape, proactively engaging development sectors, private sector, academia and communities along the way. The reason for this is that persistent shortfalls in ecological representation and management effectiveness in landscapes diminish the potential role of area-based conservation in stemming biodiversity loss, especially as it relates to threatened wildlife falling outside protected areas, but which nonetheless deliver opportunities for effective conservation measures. [14] Effective management, therefore, needs to go beyond the scope of PAs and be managed holistically;

· ***Strengthen institutional capacity at national, provincial, and local levels***: Activities articulated in the project emphasize a multi-pronged approach to help policy and decision makers internalize mainstreaming of wildlife across sectors at the national level, as well as capacity-building at a provincial level to connect national-level supportive policy measures with local-level environmental decision-making. Interventions are purpose-built to 'bridge the gap' by building the technical and institutional capacity across levels and domains;

· ***Adopt a community-driven approach***: To ensure sustainability post-project all interventions and activities should be determined by the needs and priorities identified by communities themselves using a shared-learning process and cross-pollination of knowledge and approaches. Local knowledge is built upon by asking skillful questions that do not lead to externally imposed solutions. The central principle here is to adopt an 'asking' rather than 'telling' mindset so that the quality and value of local knowledge is respected and integrated into sectoral landscape planning and priorities;

· ***Consider the diversity of gendered experiences and perspectives***: Women and men both experience and contribute differently to environmental change. Women are typically more marginalised and hence more vulnerable than men, and as a result, are usually disproportionately impacted by the negative consequences of environmental change. Community consultation and shared-learning approaches support integration of women's voices into community priorities, together with empowerment through robust alternative income generating solutions to reduce pressures on threatened ecosystems in important wildlife landscapes.

[1] IPBES (2019): Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S.

[2] China's National Biodiversity Conservation Strategy and Action Plan (2011-2030).

[3] Although only available in Chinese, this document has been uploaded as a reference on the Project Information Management System portal.

[4] X. Sun, L. Gao, H. Ren, Y. Ye, A. Li, M. Stafford-Smith, J.D. Connor, J. Wu, B.A. Bryan "*China's progress towards sustainable land development and ecological civilization.*" Landscape Ecology 33 (2018), pp. 1647-1653.

[5] Galán-Acedo, C., Arroyo-Rodríguez, V., Andresen, E. et al. The conservation value of human-modified landscapes for the world's primates. Nat Commun 10, 152 (2019). https://doi.org/10.1038/s41467-018-08139-0

[6] Population estimations based on available data to be confirmed and expanded during PPG.

[7] With the backdrop of the global pandemic, China took steps in February 2020 to also introduce legislation banning the consumption of wild animals in order to protect public health. On February 24, 2020, the Standing Committee of the National People's Congress voted in favour of the decision to comprehensively prohibit the illegal trade of wild animals, eliminate habits of wild animal consumption, and protect the health and safety of the Chinese people, recognizing the need to amend the Law on Wild Animal Protection going forward and related regulations to accelerate progress in this direction.

[8] There is a Secretariat for the CNCBC embedded within the Ministry of Ecology and Environment (MEE). It usually meets annually or bi-annually at the request of the MEE (or by another ministry), and reports to the to the State Council and the Chairman of CNCBC for approval.

[9] Of this total area, the respective coverage is 2,713,400 ha for Giant Panda National Park, 14,475 ha for Yunnan Yunlong Tianchi National Nature Reserve and 21,533 ha for Caojian plantations in Yunlong County.

[10] Almost all national nature reserves have formal co-management agreements in place with the surrounding villages (or townships). In the context of this project, co-management will occur in the buffer areas outside PAs. This model of co-management will be exploratory in the Yunnan landscape to understand whether or not it is feasible and if there is palpability to sign similar sorts of agreements in landscapes outside PAs to benefit wildlife in threatened habitats and across landscapes to encourage patrols by farmers and to support ecological monitoring by communities. For Giant Panda National Park, it is anticipated that co-management agreements will be signed between nature reserves and surrounding villages or townships, as the Park includes 82 nature reserves.

[11] Maxwell, S.L., Cazalis, V., Dudley, N. *et al.* Area-based conservation in the twenty-first century. *Nature* **586,** 217–227 (2020). https://doi.org/10.1038/s41586-020-2773-z

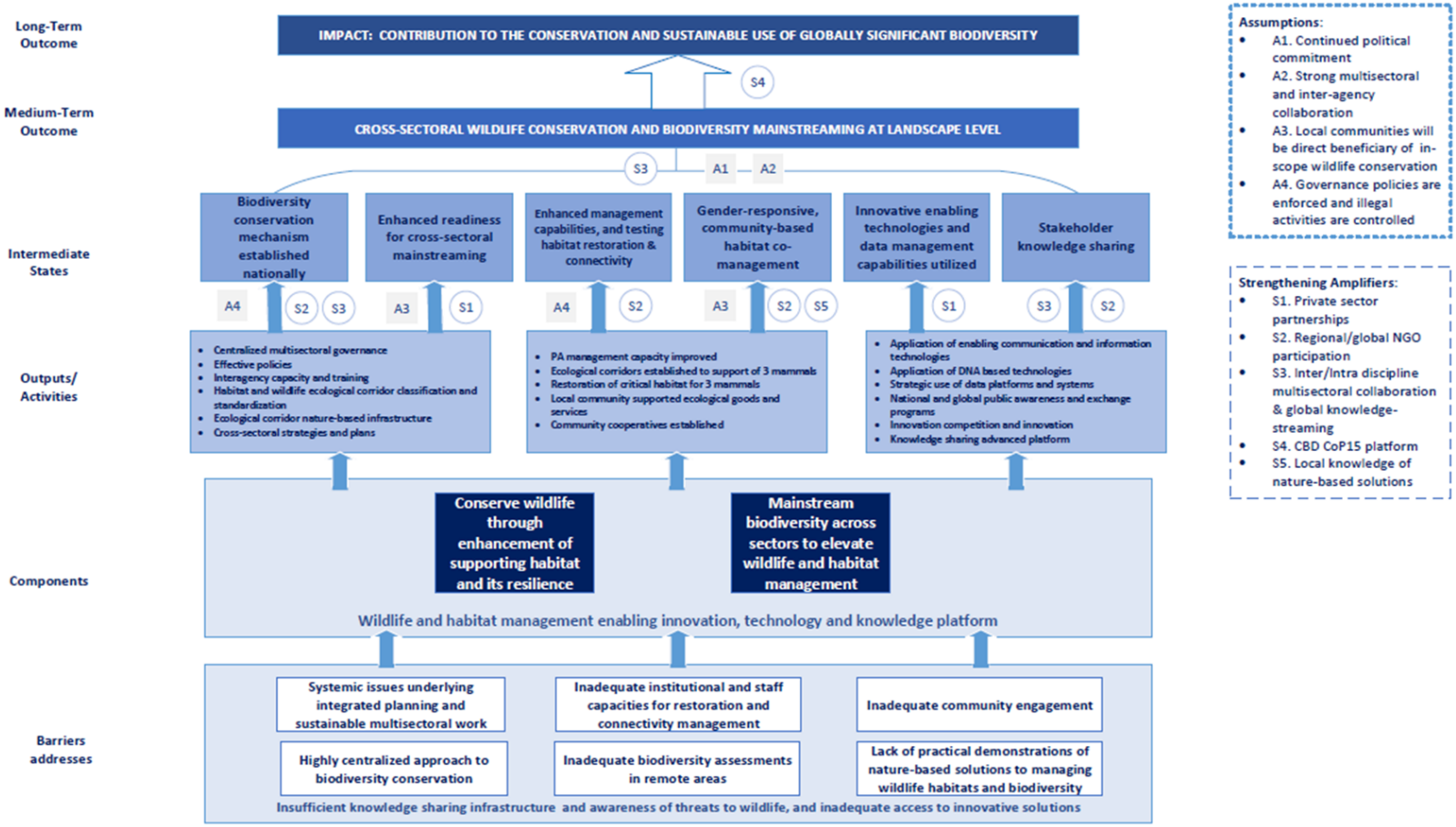
[12] It is expected that project will apply enabling technologies such as Artificial intelligence (AI), 3D visualization, advanced communication grid (5G) and smart devices, sensors and unmanned aerial vehicles (UAVs) to support population monitoring of endangered primate populations in Dali, Yunnan province. It will also apply mobile phone terminal APP technology and data processing technology to block chain ledger Giant Panda Park patrol records and support dynamic monitoring, data analysis and data collection.

[13] Advanced DNA technologies will be tested to support the establishment of a database of giant panda genetic diversity.

[14] Maxwell, S.L., Cazalis, V., Dudley, N. et al. Area-based conservation in the twenty-first century. Nature 586, 217–227 (2020). https://doi.org/10.1038/s41586-020-2773-z

The above Theory of Change is represented graphically for illustrative purposes in Figure 2 below.

Figure 1. Provisional Theory of Change



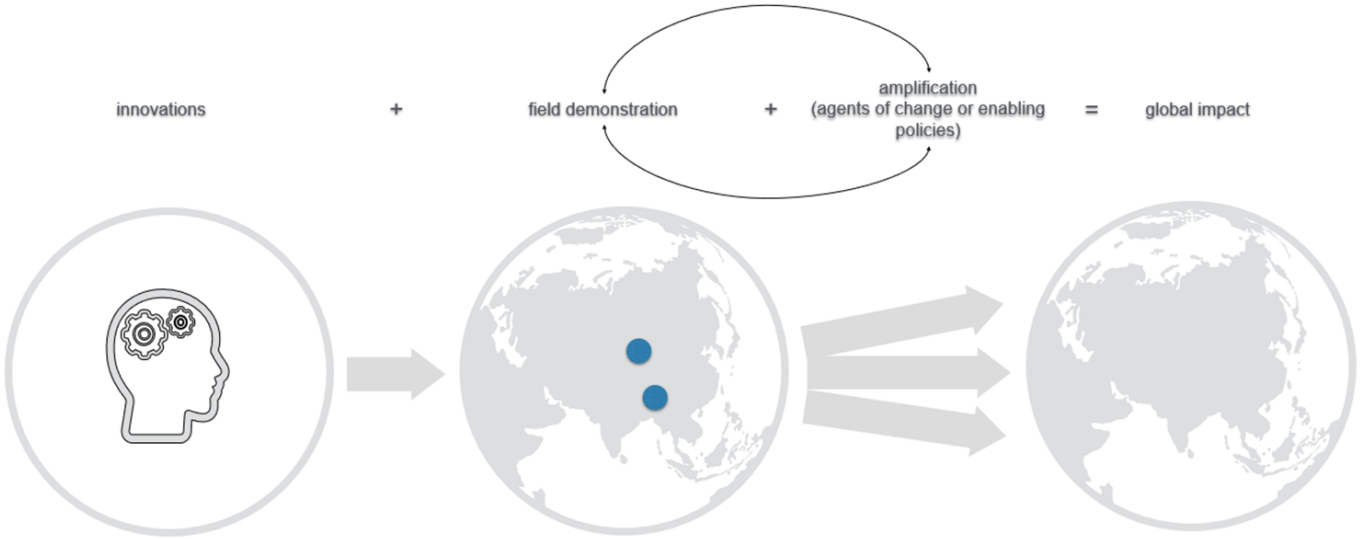
As noted in Figure 3 below, the development and piloting of a new landscape approach to conservation of iconic and threatened wildlife species across their habitats involves facilitating mechanisms from science, policy and livelihood engagement, including novel tools, methods, data or evidence and robust knowledge management that promote the adoption, influence or replication of such innovative approaches by others. While policies and enabling environment link components together, Component 3 is about amplification and helps link Components 1 and 2 together so the model can be applied elsewhere.

The following strengthening amplifiers are expected to strengthen results:

- Private sector and academic partnerships;
- Regional / global NGO participation;
- Inter/intra discipline multisectoral collaboration and global knowledge sharing;
- CBD CoP15 entry points;
- COVID-19 Recovery efforts;
- Local knowledge of nature-based solutions.

The project outcomes are purpose-built to be ambitious as they aim to address changes at three levels simultaneously. Nonetheless, the targeted changes at multiple levels are undergirded by a logical flow and inter-connection between the intended outcomes. Therefore, if implemented effectively, the outputs can be mutually reinforcing, which can in turn contribute to improved potential for the success of the project overall and value-added to global biodiversity.

Figure 2: Amplification of successful biodiversity mainstreaming models through innovation and field-based activities



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1a (4) alignment with GEF focal area and/or Impact Program strategies;

The project is consistent with and aligns with GEF focal priority areas strategies for biodiversity as summarized below:

· BD-1-1: Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors

· BD-2-7: Address direct drivers to protect habitats and species and improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate

For the first priority area, the intent of the project is to mainstream biodiversity considerations into cross sectoral planning across large production landscapes where there continues to be vested interests not beneficial to biodiversity, a collision between competing priorities, and overlapping and uncoordinated impactful activities (i.e. infrastructure development) to the detriment of biodiversity and threatened species. The project will give rise to a more cohesive framework that will allow the government at the national level to better coordinate priorities, via the formation of committees with broad representation including at the Provincial level, and develop a coherent set of biodiversity protection policies and a technical standard system at the national level.

Mainstreaming at an operational level will be supported by the adoption of bio-friendly sustainable infrastructure construction guidelines to ensure sectors that have significant biodiversity impacts will be more benign and therefore allow biodiversity to thrive through the application of nature-based management practices in place of business as usual solutions.

With respect to the second priority area, the project provides a conduit for addressing the drivers to protect habitats and species, with an emphasis on threatened wildlife, by enhancing the intactness and effectiveness of protected area systems across landscapes. The Giant Panda National Park, spanning 2,713,400 ha is somewhat fragmented giving rise to isolated populations of pandas. Linking up these habitats through increased connectivity and restoration activities will allow it to become one contiguous area where it will be a focus for species conservation as an anchor to improving management across the entire landscape. Similarly, three ecological corridors for key endangered primate species in Yunlong County, Dali, Yunnan are proposed to link Mt. Lasha and Mt. Longma landscape, with key primate habitats in Tianchi and in Mt. Longma,

Pandas are a recognized and iconic landscape species that require specific and stable conditions to thrive. The assumption is that improved connectivity and providing habitat for pandas will also benefit a large number of other species in Giant Panda National Park,

Existing fragmented habitats remain a mosaic of disjointed land management units with incompatible objectives and management regimes. More broadly, an increased amount of habitat under overall management under a singular authority and a unified set of policies will improve species and landscape potential and reduce disturbances from contact with agricultural zones and people. Communities will be incentivized to manage forests through the certification schemes and other custodianship activities, which includes biodiversity mainstreaming, resulting in long-term biodiversity benefits by reducing degradation while at the same time improving the financial sustainability of these communities through improved forest condition and alternative livelihood projects. By implementing the proposed knowledge management plan and a training plan, communities and government will also learn to better interface with local communities and integrate knowledge on biodiversity into planning objectives to achieve conservation and sustainable resource management.

Through technology-aided mapping and strong cross-sectoral coordination mechanisms in multiple use landscapes, the project will directly address the key drivers of biodiversity loss, including a lack of large-scale planning, illegal activities, illegal killing of wildlife, loss of forest contiguity, landscape intactness, and habitat degradation. These key drivers are responsible for overall landscape degradation under the limited planning scenario that currently exists on this large landscapes.

1a (5) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing;

The government already provides a large amount of funding for the protection and restoration of the natural environment and management of protected areas, however, more funding than is available for wildlife conservation management actions is required. The GEF support will help address critical gaps that remain in the harmonizing policies via a SWCG under the existing National Biodiversity Commission with representation from the ministries of agriculture and rural affairs, natural resources, forestry and grassland, ecology and environment, transportation and culture and tourism, and across government sectors that make decisions impacting biodiversity, especially in habitats housing threatened wildlife species. It will develop new approaches to managing and connecting PAs.

By accessing the GEF grant, collaborating with academia, the private sector and local communities, while adopting lessons learned from international experiences and previous and ongoing GEF funded projects, the project is expected to raise awareness of the special requirements needed to protect the giant panda, black-and-white snub-nosed monkey, Indochinese gray langur, stump-tailed macaque and western black crown gibbon. Innovative technologies and approaches drawing from local knowledge will also improve the efficiency of the use of national funds and achieve greatly improved conservation impacts per unit of funding.

The global benefits that will be delivered are significantly improved legal and systemic framework for, and management of, China's threatened wildlife habitats. A total of 2,749,408 ha of terrestrial area will be directly benefited through targeted activities delivered under the program. There will be 9,300 ha under improved management through enhanced connectivity measures (7,100 ha) and nature-based restoration (2,200 ha) outside the protected area network targeting 10,000 beneficiaries including 4,000 women,

Table 6: The incremental reasoning

Baseline practices	Alternative to be put in place by the Programme	Global environmental benefits
1. No cross sectoral mechanism to take an integrated landscape approach for the conservation and sustainable use of threatened wildlife and their habitat. 2. Incoherent set of policies and regulations across sectors that make decisions on biodiversity persist causing a collision of interests and priorities, compounding the lack of a landscape level approach leading to further fragmentation, increasing threats, and degradation of natural resources on which communities rely. 3. Insufficient rationalization for identifying the boundaries of key habitats for wild animals and ecological corridors in ter	1. An effective cross sectoral conservation coordination mechanism under the National Biodiversity Commission established for threatened wildlife across landscapes. 2. A framework of supportive cross sectoral policies based on Priority Action 1 of China's NBSAP for a landscape approach to wildlife and their habitats . . . 3. A comprehensive set of guidelines approved by a Special Wildlife Coordination Gro	Improved management of wildlife conservation of 2,749,408 ha, with 10,100 ha under improved management through enhanced connectivity measures outside of PAs and 2,200 ha through nature based restoration and targeting 10,000 beneficiaries including 4,000 women, with an array of globally significant biodiversity including endangered species such as the black and white snub-nosed monkey, Western black crown gibbon and vulnerable species such as the giant panda; increased options for sustainable financing to cl

ms of relative importance and role in eco logical functioning, and inadequate due d iligence by sectors in their development planning	up for the prioritization of restoration and e cological corridor enhancement technique s at key sites and by incorporating frontier technologies and knowledge management innovations, as well as enhancements to th e national EIA system to include a special wildlife chapter.	ose conservation gaps and c orridor management made m ore efficient and cost effectiv e through innovative technolo gies and locally sourced solu tions with direct measurable i mpacts on biodiversity and e cosystem health; and reduce d threats to biodiversity from hunting, over-exploitation and sector activities.
4. Without fully operational corridors an d connectivity, current PA network alone i s not adequate to conserve viable popula tions of globally significant biodiversity where survival of individual species can be affected by integrity of a community.	4. Increased movement, overall species per sistence, habitat connectivity, genetic exch ange, predation avoidance and healthy eco system functioning made possible togethe r with planning for an entire community ins tead of sporadic populations.	Increased security of criticall y important biodiversity and h abitat to deliver global benefit s including the contiguity of 2,749,408 ha of PAs under im proved management.
5. Academia, NGOs and local communit ies are not fully engaged in conservation as a result of centralized planning, althou gh they possess in-depth knowledge of r estoration solutions, causing increased marginalization leading to unsustainable resource usage. . .	5. Community-based restoration and corrid or management and other tenure arrangem ents, (e.g. certification of scheme contract s) fostering increased collaboration, along with alternative income generation will be promoted to secure broad community sup port for conservation solutions, together wi th mission-driven partnerships with acade mia and NGOs.	A paradigm shift in ecologica l civilization and enhanced co nsciousness of the needs of i conic and threatened species whereby there is sector-drive n prioritization and planning of wildlife needs and their ha bitats in development plans a s a result if an internalization of their inherent values and s olutions to biodiversity threat s are made possible by scala ble landscape approaches es tablished by the project.
6. Insufficient long-term monitoring of k ey threatened species due to complex to pography, geographical isolation and co mplex landscape features.	6. Real time long-term monitoring and eval uation made possible by “real time” monito ring solutions and technology-aided innova tions with specific use cases established.	

1a (6) global environmental benefits (GEFTF);

The global environmental benefits of the Project will come from activities in two project demonstration sites, as well as policy, planning and mainstreaming activities at the national and provincial level. The global environmental benefits achieved by the project include improved effectiveness of 2.74 million ha of protected areas. These sites are primarily habitat for endangered wildlife of global significance. Targeted capacity-building and threat reduction activities and the application of advanced technology and financial innovations will help improve the condition and management effectiveness of protected areas and increase the income of the community. To develop ecological corridors in pilot sites of about 7,100 ha; Habitat restoration on approximately 2,100 ha of protected areas; develop community-based activities and alternative livelihood demonstrations benefiting 10,000 people (40% representation of women); design and implement innovative technologies and financing models, and conduct related activities to improve the effectiveness of protected land management to better respond to the needs of wildlife and biodiversity conservation. These activities are expected to increase connectivity, biodiversity and improved ecosystems services. These activities are essential for the existing protection of a wide range of endangered wildlife. More sustainable use and management of protected areas will provide conservation benefits for wildlife and human beings.

1a (7) innovation, sustainability and potential for scaling up.

Innovation: The project is suggesting an innovative model for an integrated landscape approach by proposing a number of "firsts" for China with the aim of reconciling competing objectives and prioritization of wildlife conservation and sectoral landscapes through supportive polices and guidelines (which will have been tested and refined at the site level). There has never been a dedicated SWCG formed under the National Biodiversity Commission with the mission to work collaboratively with special attention to ecological corridors, co-management opportunities, threatened / fragmented habitats in and around PAs, and intersectoral coordination. The recommendation of a designated wildlife chapter in the national EIA system is again, a novel concept together with green infrastructure guidelines and the proposition that wildlife impact assessments also extend to culture and tourism. This model is also expected to be honed by both international experiences and will be accelerated by advances in technologies and knowledge management and further amplified by offerings of both academia and private sector R&D. This is consistent with conclusions drawn from recent studies that there has been inadequate investment and understanding of landscapes and open areas to connect and meet PA targets.

At the provincial, committees responsible for the primate strategy and action plan, as well as that for Giant Panda National Park, will be done in full consultation with the private sector which would be new and innovative in its own right. This also makes sense from an execution point of view given the heavy technology-focused and data driven knowledge management that will support the implementation of the action plan.

On the technology front, the project's engagement with the private sector and academia means that it will get access to cutting edge innovations, with use cases that perhaps have not been applied to a conservation setting before. The project will actively utilize innovative frontier technologies and data driven advances on key wildlife species and biodiversity conservation within China. The use of technologies, for remote landscapes monitoring and the adoption of technologies for new purposes for which they may have not originally been intended offers replication opportunities across other types of wildlife species and within similar landscapes. Innovative forms of monitoring will be supported including the application of enabling technologies, such as: Artificial intelligence (AI), 3D visualization, advanced communication grid (5G), smart devices, sensors and unmanned aerial vehicles (UAVs), to support population monitoring in

Dali, Yunnan province and the application of advanced DNA technologies to support the establishment of a database of giant panda genetic diversity in Sichuan. Data driven technology informed by machine learning and AI will also help with real time decision making and refinements to policies based on the outcome at site life, closely integrated the results of testing the landscape model so it can be strengthened.

Balancing these needs through the landscape approach is an innovative strategy that is highly relevant to the rest of the biodiversity corridors in China and therefore, the upscaling of this approach in the management of iconic and threatened wildlife species shall be ensured through the replication strategy. Through national level partnerships that will be strengthened in the two pilot sites, together with the private sector and academia, it is expected that the project will be able to influence policies and procedures of other sectors; and develop model institutional arrangements to successfully work out similar arrangements in other landscapes.

Sustainability: The approach is also cost-effective and the most-optimal arrangement. By dovetailing on existing governance structures the coordination can avoid delays, growing pains and overhead which come with establishing new entities and can be effective from the outset since there are already established protocols and processes. With the dissolution of the CBD Implementation Coordination Group and the Joint ministry Conference on Genetic Resources not having the clout it once had, there is no other body with State support to address the core issues of the project, also a nod to it being able to operate at the highest level of government.

The different project components will act in an inter-connected fashion to improve biodiversity conservation policies, augment and create sector specific recommendations and guidelines to facilitate the adoption of more sustainable landscape practices that reduce the threat to wildlife through alternative livelihood cooperatives establishments, increase the local residents' benefits, and raise awareness among the decision-makers, the public and the next generation to build support for biodiversity conservation and wildlife protection beyond the life of the project.

The proposed project builds on a strong and supportive government baseline for biodiversity conservation. A new announced policy includes proposing a new list of wild animals under State priority conservation. The proposed project is strongly aligned to government policies and will further mainstream biodiversity/wildlife conservation within the central policy and planning via integration into the 14th Five-Year Plan and the associated sector plans, further designed in PPG phase.

Institutionalization of participatory and sectoral planning processes to mainstream key iconic and threatened wildlife species will be inherently sustainable through the piloting and gradual incremental accountability of the 1 national and 2 Provincial committees. Livelihood enhancement activities will include sound due diligence through business planning and market analysis to ensure markets exist for products and sufficient capital and organizational training to result in a high probability of success. Cooperatives that will benefit 300 households will similarly be trained with a focus on alternative livelihoods opportunities and income streams. Use and application of advanced technologies that are easily applied will help also to provide a cost-effective and sustainable monitoring results over the long-term, especially as technologies are deployed elsewhere and economies of scale are reached.

From a species perspective, well-connected ecosystems across different types of landscapes are critical for maintaining important ecological and evolutionary processes (including species migration and gene flow), especially when species face chaotic non-linear shocks and rapid climatic and environmental changes.[1]

Scaling up: The knowledge learned from the 2 pilot sites will be used to inform the development of policies and technical guidelines for managing biodiversity resources at a site level to support the replication of project activities across different PAs in China. With the successful implementation of the project, this concept will be disseminated across other PAs in China, strengthening the SWCG and policies with an emphasis on key wildlife species. A long-term monitoring network, standards development and data management of the proposed program will enable China to have a more complete understanding of the population dynamics, genetic diversity and patterns of endangered wildlife, will offer new toolkits that can be adopted elsewhere and will provide data that informs management decisions. The project fits well with the vision of the GEF and CBD and will contribute to the fulfillment of the goal of the post-2020 Global Biodiversity Framework, especially in the context of meeting aggressive PA targets.

Considering that the project is directly relevant to and complementary to landscapes and buffer areas supporting adjacent to PAs, there is a strong replication dimension. Once the comprehensive guidelines are completed under this project (which will include among other things direction on the design and management of participatory connectivity conservation and restoration efforts in multi-use landscapes prioritization guidelines/gap analyses, sector specific guidelines for agriculture and rural affairs, transportation and infrastructure, and tourism, as well as enhanced EIA assessments focusing on wildlife), there will be no shortage of entry points; these will certainly be applicable to other areas of the country. The supportive policies and guidelines developed under Component 1 and demonstrated in landscapes together with remediation work at the proposed sites in Component 2 will provide scalable models in other areas with similar parameters. The Giant Panda National Park is part of China's blueprint to construct additional 10 large-scale concept national parks across other landscapes such as in the Qilian Mountains where sectoral harmonization and a landscape approach is also needed as a result of decades of logging, mining, the building of factories and unsustainable tourism. This project and the landscape model could be considered for those initiatives as well. Who will decide and make the decisions to scale the model being proposed to other locations will surely be a consultative effort with a wide range of stakeholders including academia and the private sector, but with the SWCG, the necessary business architecture and government apparatus will be in place to formalize these decisions and importantly, Component 3 through the data management platform will help underpin those decisions with robust data and decision support.

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[1] Magris, R. A. et al. Biologically representative and well-connected marine reserves enhance biodiversity persistence in conservation planning. *Conserv. Lett.* **11**, e12439 (2018). and Mendenhall, C. D., Karp, D. S., Meyer, C. F. J., Hadly, E. A. & Daily, G. C. Predicting biodiversity change and averting collapse in agricultural landscapes. Nature 509, 213–217 (2014).

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

See Annex A for map of demonstration sites. Shapefiles for 2 demonstration sites are also provided.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above,please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

Preliminary consultations on the development of this proposal have taken place including some on-going and accomplished biodiversity projects in China. These consultations have included the proposed pilots for this project, who have confirmed their interest in participating in the project along with sufficient willingness of local communities to engage in the project and adopt sustainable natural resources use practices. Further consultations with local communities, including ethnic minorities at Dali Yunlong County of Yunnan Province and Giant Panda National Park (Bai, Lisu, Yi, Achang, Qiang, Zang minority groups) will be conducted during the PPG phase. This proposal has also been discussed with NFGA, GEF SEC, OFP, Yunnan and Sichuan Provinces, NGOs, as well as with potential interested private sector co-financers.

Further and detailed consultations with project stakeholders will take place during the PPG phase. Preliminary identified stakeholders and the ways they will be engaged in project preparation are outlined in Table 7. The main mechanisms for engagement will be through PPG stakeholder workshops and targeted discussions with the consultant PPG team of international and national consultants in person, phone, Skype or email.

Table 7: Preliminary list of project stakeholders

Stakeholders	Roles and Responsibilities
Ministry of Finance (MOF)	Operational Focal Point (OFP) responsible for coordination and implementation of GEF projects in China. Will be briefed on project development and endorse final Project Document.
National Forestry and Grassland Administration (NFGA)	Responsible for the supervision and management of forestry and grassland and their ecological protection and restoration, as well as the supervision and management of terrestrial wildlife resources. Including: To supervise and administer the protection of land wildlife throughout the country; to draft relevant laws and regulations and departmental rules; to formulate relevant plans and standards and implementation. To undertake the specific work of implementing CITES; To undertake the implementation of non-trade wildlife protection; To undertake the work related to the cross-sectoral implementation and law enforcement coordination mechanism.

	Will be Executing Partner for proposed project. Will advise on all aspects of project design, proposed management structures and alignment to government co-financing and coordination with other partners, take full responsibility for daily implementation of the project during the full-size period.
Ministry of Natural Resources (MNR)	New Ministry created in 2018 central Ministry reform. The main responsibilities of the MNR include: the rational development and utilization of natural resources, and acting as an important stakeholder in the ownership of land, minerals, forests, grasslands, wetlands, water, oceans and other assets, as well as the management of the use of all land space; To administer the National Forestry and Grassland Administration, etc. Will be engaged in project development via NFGA as Executing Partner and through the engagement of other relevant sections/functions within the Ministry to ensure strengthened coordinated approach to wildlife/biodiversity conservation.
Ministry of Ecology and Environment (MEE)	To guide, coordinate and supervise the restoration of ecological protection, including the supervision of wildlife protection, wetland ecological environment protection and desertification prevention and control. To guide, coordinate and supervise the protection of rural ecological environment; to supervise the environmental safety of biotechnology; to lead the work of biological species (including genetic resources); to organize and coordinate the protection of biodiversity; and to participate in the compensation work of ecological protection. Responsible for overall coordination, supervision and management of ecological and environmental issues, CBD implementation and clearing-house, execution of CBPF. It is the agency that guides, coordinates and supervises ecological conservation. As the competent administrative ministry of the State Council for environmental protection, MEE will be engaged for comprehensive management of nature reserves across the country, including guiding, coordinating, supervising environmental protection work of various kinds of nature reserves, scenic spots and forest parks.
National Development and Reform Commission (NDRC)	To be responsible for macro-control, including drafting and organizing the implementation of national economic and social development strategies, master plans, annual plans, etc. In this project, NDRC is responsible for mainstreaming biodiversity conservation into socio-economic development plan and annual plan, Examines and approve major ecological rehabilitation programs/projects, responsible for promotion of the strategy of sustainable development through lead role in five-year planning process.
UNDP	Development agency for the United Nations and coordinates UN assistance in China. UNDP will serve as GEF Agency for the proposed project. UNDP already initiated MOU and Financial agreements with private sector entities for biodiversity conservation in Yunnan Province. Will coordinate the PPG process and ensure project development process and project document

	ation meet GEF and UNDP-GEF requirements. Will play quality insurance role during impleme ntation.
Provincial bureaus of forestry and gra ssland where the project pilots are l ocated	Responsible for planning, supervision and management of wildlife conservation in Yunnan, Si chuan, Shaanxi and Gansu. Will provide inputs on context and needs at each site to inform d esign of detailed project activities. Will responsible for implementation of pilots in their territ ory.
Giant Panda Natio nal Park	Responsible for management of project pilots in their national park, which covers three provi nces including Sichuan, Shaanxi and Gansu. Will advise on project design, needs and context s at a site level. Responsible for site-level execution and monitoring.
Academic institut es, colleges and u niversities	Responsible for field surveys, monitoring, data collection and database development, these i ncluding Beijing Forestry University (BFU), Chinese Academy of Sciences (CAS), Sichuan Univ ersity, Dali University etc. Can provide technical expertise on hydrological, botanical and zool ogical aspects and data to support detailed project design. Institutions, such as Beijing Education Academy is responsible for conducting nature educati on for students.
Primary and seco ndary schools	Many primary and secondary schools (including teachers and students) in Yunnan and Sichu an, even the whole country need further nature education on biodiversity/wildlife conservatio n. Conducted communication and education to the students on biodiversity/wildlife conserv ation so that they can communicate to adults in a “small hands in big hands” manner. Trainin g of trainers/teachers is essential.
International cons ervation agencie s/NGOs	Potential to provide technical expertise and bring in international experience, networking and platform for communication. Possible co-implementers for some activities under projects. Will be consulted during project design, including to identify lessons learned and findings fro m past and ongoing initiatives. e.g. Paulson Institute, IUCN, Wildlife Conservation Society (W CS), The Nature Conservancy (TNC), WWF, and CI
National/local NG Os	Can provide technical service, knowledge dissemination, nature education, and wildlife habit at survey. May become co-implementing agency or project co-contractors of some project ac tivities, e.g., Alashan SEE Foundation, etc.
Private sector	Enterprises including GAC Toyota, Ant Group and other companies is planning to cooperate with Giant Panda National park and Dali government on PA restoration and corridor construc tion. Some other technical companies will provide advanced technical support to the project. Other opportunities for partnership and co-financing will be explored in discussions during th e PPG phase.

Local communities	Local communities at two demonstration sites, primary resource users of nature reserves and surrounding areas. Direct participants and beneficiaries of the project. Local communities at all demonstration sites will be consulted during PPG phase to get their inputs to detailed design of project activities and confirm support for project.
Ethnic minorities	Consultation with the ethnic minorities (Bai minority groups) at Dali Yunlong County and (Jiang, Zang, Yi minority groups) in Panda National Park covering Sichuan, Shaanxi, Gansu provinces will be conducted during the PPG phase. They will be further engaged in the design of project activities and to confirm their support for the project, with application of FPIC as needed.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Women are directly engaged in agriculture activities and natural resources management, particularly among local communities in the ecological corridors and areas targeted for restoration. Traditional communities and especially women, are expected to significantly influence current practices, and can be effective agents of change and community advocates of biodiversity management strategies. Among Indigenous Populations and Local Communities (IPLCs) there are clear roles for women as community leaders, resource managers, trainers of youth and custodians of threatened biodiversity and habitats. Among remote farming and agricultural communities, women make important decisions regarding production, and have vital roles in marketing of the produce, allocation of domestic resources and harvests. As nurturers of families, women are most directly affected by resource degradation or drastic changes in natural resources productivity.

Due to underrepresentation of women within the biodiversity sector in China, this initiative also presents an opportunity to promote women's participation at all levels of the project. As such, the project will make a concerted effort to layer in gender across sectors through biodiversity mainstreaming and also increase the proportion of women participants in various areas to a level substantially above the business-as-usual scenario. The project has adopted aggressive targets to ensure that 40% of all beneficiaries are women.

The project's risk register has surfaced a risk (see Risk 3) explicitly about gender noting that "*prevailing gender biases in China unintentionally discriminate against women limiting or adversely impacting their possibilities for accessing opportunities, benefits from and/or influence on project interventions and outcomes."* To mitigate this, a comprehensive gender assessment is needed to clarify relevant gender concerns and determine how mainstreaming of women into the project interventions can be ensured. It will be underpinned by a thorough needs assessment and focus on how to provide specific trainings for women, how to best facilitate women livelihood operations etc. In this regard during the project development phase, specific consultations with relevant women's groups/leaders will be undertaken by the project's development team but also through consultation coordinated by the NFGA. The project will ensure that gender indicators and key performance indicators are ambitious yet pragmatic, anchored to discussions on what is possible in the time available

The comprehensive gender assessment will note the differentiated roles of women and men in biodiversity conservation and natural resources management, the impacts of biodiversity loss and resource degradation on women, and their potential role in reversing these trends. The results will be used to develop more responsive gender development program under the Project, including the project gender mainstreaming plan and gender disaggregated indicators, that will become the vehicle going forward for monitoring and evaluation of the Project's impact on promoting gender equity and empowerment of women and youth including through the application of the UNDP gender maker – that assesses project's potential contribution to mainstreaming gender. In addition, this gender assessment will also identify areas where negative impacts can be reduced, and positive ones enhanced. Both during design and implementation period, the project will ensure equal opportunities for women and men to participate in decision making. Steps will be taken to ensure that women's needs are considered in management arrangements set up by the community, including encouraging women to actively participate in community meetings and platforms that discuss project activities.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources; Yes

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Since the reform and opening up, China's private sector and individual economy have made great progress and become the main body of China's economic development. According to statistics, by the end of 2017, the number of Private enterprises in China had reached 27.263 million, and the number of individual industrial and commercial households had reached 657.93 million. The registered capital had exceeded 165 trillion yuan (RMB). The private sector contributed to more than 50 percent of the state's fiscal revenue, over 60 percent of GDP, fixed asset investment and foreign direct investment, and over 90 percent of new employment. With the growth of the private enterprise economy and the improvement of enterprise environmental protection consciousness, many private enterprises have established a foundation in the form of donating a portion of their profits to public welfare. Part of this enterprise financing is key for ecological environment protection, especially the protection of wildlife, and poverty alleviation and education, etc. Since 2008, more than 100 entrepreneurs have set up a joint "Alashan foundation, and in 2015 a famous private entrepreneur Jack Ma (Alibaba) and Ma Huateng (Tencent) jointly set up "Shangri-la ecological protection foundation" which is dedicated to the ecological environment and wildlife conservation non-profit public welfare organizations. In 2010, Alibaba announced the establishment of "Alibaba Public Welfare Foundation", which used 0.3% of the company's annual net income for public welfare funds. By 2015, it had invested 220 million RMB in 127 environmental protection projects, including those in Yunnan and Sichuan demonstration areas. Some other enterprises have also participated in wildlife/biodiversity in these two demonstration areas, for instance, Toyota is planning to have projects with Yunnan on restoration and UNDP, through agreements on implementation modalities with other private sector entities, will be directly supporting biodiversity conservation efforts in Yunnan Province.

On the whole, private sector involvement in environmental protection and wildlife protection is still in its infancy but it will grow rapidly and the amount of money will increase gradually. With the continuous reform and improvement of the national tax policy, the private sector will be encouraged to increase its input in public welfare undertakings. Wildlife protection has always been a hot spot in ecological and environmental protection, and Yunnan and Sichuan provinces are the regions with the most abundant biodiversity in China, which have attracted extensive attention, in particular, primates such as golden monkeys and gibbons and rare and endangered flagship wild animals such as giant pandas have been favoured by people all over the country and even the world. Therefore, the project is bound to attract the participation of the private sector (such as Alibaba, Tencent, etc.), and part of the supporting funds will also come from these private enterprises.

Any governance structure or group under the National Biodiversity Commission operates exclusively with participation of government ministry entities and therefore, given the highest level of government at which it operates, the project must be pragmatic and suggest logical entry points for the private sector and any other important stakeholders such as academia. At the provincial level however, the committees responsible for the primate strategy and action plan, as well as that for Giant Panda National Park, can and will be done in full consultation with the private sector which would be new and innovative in its own right. This also makes sense from an execution point of view given the heavy technology-focused and data driven knowledge management that will support the implementation of the action plan.

During the PPG, and as part of UNDP procedures to engage with private sector, due diligence would be undertaken for all identified private partners before conforming engagement with them. Table 8 below articulates anticipated involvement from the private sector at early planning and engagement stage as well as the time horizon of the respective projects. At this juncture it is expected that the private sector will feed heavily into and provide subject matter expertise into Component 3, specifically around providing the insight into appropriate solutions to problems around monitoring, how solutions can be scaled to other landscapes in the adjacent area, in China and abroad to solve similar problems associated with protection key threatened and iconic wildlife species and helping articulate use cases through deep business analysis of different frontier technologies. It is also envisaged that the telecom industry will step in during the PPG phase to assist with monitoring and data platforming.

Table 8: Anticipated Private Sector Engagement

No.	Project name	Contents	Timeline	Funding (USD)	Donor
1	Restoration of burned land	Forestation of 26.67 ha; natural observation/education	2017- TBC	40,000	GAC Toyota
2	Construction of ecological corridor for Black-and-white Snub-nosed monkey (phase 2)	Forestation of 238.87 ha	2022- TBC	850,000	Ant Forest project of Ant Group
3	N/A	Development and application of field patrol big data platform and mobile terminal software in Dali (one of the demonstration sites)	Planning	-	Wiseweb technology company
4	N/A	Provide equipment for testing and promotion in Yunnan	Planning	-	Hunan Vanguard Group Co., Ltd
5	N/A	Provide wildlife rescue equipment, field patrol equipment, etc., the number varies from ye ar to year for Giant Panda NP.	2020 - TBC	30,000	TBC

5. Risks to Achieving Project Objectives

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Table 9: Risks

Description of Risk	Impact of Risk	Mitigation Measures for Risk
Risk 1: There is a risk that stakeholder engagement and consultations lead to different views on the priorities and their involvement in the project.	I =2, L=2 Low	**Assessment:** During the development of this concept stakeholders were consulted at the national and provincial level. Local-level consultations are currently being held and will be further carried out during PPG. **Management / Mitigation Measures:** · Stakeholder engagement and consultations are currently continuing throughout the PIF comment and approval process • Stakeholder engagement to continue during PPG · Effective ongoing communication and dialogue by the IA and UNDP Country Office to address concerns · During the project implementation phase, based on the Environment and Social Management Framework (ESMF) prepared during the PPG phase, targeted management plans will be developed. These include: A comprehensive Stakeholder Engagement Plan; Develop and implement a comprehensive Gender Mainstreaming Plan; and Livelihood Action Plan (if deemed necessary) Note: refer to the SESP pre-screening for further details
Risk 2: There is a risk that the rights of affected populations (particularly of marginalized groups) are adversely impacted by project interventi	I = 3, L = 2 Low	**Assessment:** Further assessments of the rights of national and local level stakeholders are needed with a specific focus on gender and ethnic minorities. Assessment of the potential impacts of the project on rights and interests, lands, territories, resources, and traditional livelihoods is also needed, and it should be det

ed by project interventions and outcomes, and members do not have the possibility or capacity to claim or advocate in favour or their rights or engage in meaningful participation.		ermined when Free, Prior and Informed Consent (FPIC) is required in accordance with national contexts and preferences. Consultations with relevant stakeholder groups will be undertaken by the project's development team but also through the consultation mechanisms of the local agencies. Management / Mitigation Measures: · Develop (during PPG) and implement (during the project) a comprehensive Stakeholder Engagement Plan with emphasis on Ethnic minorities and other vulnerable groups. · Develop and implement a comprehensive Gender Action Plan. · Thorough SESP screening assessment and approval, including the design and implementation of accompanying management plans. · Include in the project design a grievance mechanism for the project based on the existing government and UNDP mechanisms.
Risk 3: Prevailing gender biases in China unintentionally discriminate against women limiting or adversely impacting their possibilities for accessing opportunities and/or influence on project interventions and outcomes.	I = 3, L = 3 Moderate	Assessment: A comprehensive Gender Analysis (GA) is needed to clarify relevant gender concerns and determine how mainstreaming of women into the project interventions can be ensured. It will be underpinned by a thorough needs assessment and focus on how to provide specific trainings for women, how to best facilitate women livelihood operations etc. In this regard during the project development phase, specific consultations with relevant women's groups/leaders such as the All China Women Federation (and their local chapters) will be undertaken by the project's development team but also through the consultation mechanisms of the local forestry boards. Management / Mitigation Measures: · Ensure that gender indicators and key performance indicators are ambitious yet anchored to discussions on what is possible in the time available · Develop and implement a comprehensive Gender Action Plan and include gender equality and the mainstreaming of women into project documentation.
Risk 4: There is a risk that the anticipated benefits from the project's landscape restoration and corridor enhancemen	I = 4, L = 2 Moderate	Assessment: During the project development phase focus should be placed on scoping appropriate forest landscape restoration models and techniques that are to be included in the project activities. During implementation, this will be follow

d corridor enhancement interventions do not materialize.		ed up by further screening of models and techniques to ensure that they are best suited for the project localities. In addition, the project design must ensure that the project developed solutions (including regulations, plans, trainings guidelines etc.) can be effectively used with minimal resistance. Management / Mitigation Measures: · During the PPG identify a subset of suitable models and techniques for connectivity activities and landscape restoration which could be used during project implementation. · Consider piloting small-scale activities before being applied at scale. · Site visits to areas where techniques have been undertaken or tried. · Include clear Theory of Change and clear project outcomes/outputs in the project documentation, clarifying the project pathways for project implementers.
Risk 5: There is a risk that the effects of climate change such as flooding, droughts and forest fires could impact project areas and activities (See basic climate risk screening below for details)	I = 4, L = 2 Moderate	Assessment: The PPG assessments will fully consider climate vulnerability by adopting local and expert advice on how to integrate and internalize climate resilience into project design and implementation and will assess this risk at the project site level. Management / Mitigation Measures: · Project design will consider the results of the assessment and fully integrate climate change mitigation and adaptation measures including through land restoration methodologies livelihoods support, capacity building and awareness. · Select sites for remedial action carefully to focus on areas not prone to events that could derail activities.
Risk 6: There is a risk that the introduction of new livelihood activities from custodianship of key habitats as part of the project, do not generate income in or lower income streams than projected.	I = 2, L = 2 Low	Assessment: Consultations with potential project-affected communities at demonstration sites during PPG. Assess potential impacts on current levels of access and use. Management / Mitigation Measures: · Development (during PPG) and implementation of a comprehensive Stakeholder Engagement Plan that will set out processes for engagement and

		consultation with communities across all stages of the project. Potential development and implementation of a Livelihood Action Plan (to be determined during PPG). · Consider a basket of interventions to increase likelihood of success.
Risk 7: Local communities being affected have limited possibilities for accessing opportunities and/or excreting influence on project interventions and outcomes which negatively affects their development priorities.	I = 3, L = 2 Moderate	**Assessment:** Specific attention will be paid to ensure that local communities have a voice and place at the table during project design and during implementation. It is expected that needs will be addressed via implementation of the Stakeholder engagement plan which will have a specific focus on ethnic minorities. **Management / Mitigation Measures:** Develop and implement a comprehensive Stakeholder Engagement Plan with emphasis on ethnic minorities and other vulnerable groups (same as under Risk 1).
Risk 8: There is a risk that senior decision makers within the government and enablers within key departments withdraw support for long-term institutional and transformational changes needed to make the project a success.	I = 4, L = 1 Moderate	**Assessment:** The project's approach and advocated theory of change is to be reviewed and confirmed by senior decision makers within NFGA and the Chinese Government (including the GEF OFP) to ensure that the project remain in line with NFGA's vision for the long-term transformative change of the project. **Management / Mitigation Measures:** · NFGA senior officials and formulation team will work closely together during the PPG phase and ensure that the project documentation fully reflect the NFGA proposed vision for a holistic approach which maximizes the ecological and social benefits of the project, as well as ensuring that the project's activities, outputs and outcomes effectively supports the long-term transformative change. · During the PPG ensure that any systemic changes required (increase in head count, increase in budget or changes in job descriptions) are included in any government entity plans and budgets and are aligned to strategic goals and priorities of stakeholder agencies in order to support business transformation objectives linked to the project. · Communicate often and communicate early.
Risk 9: There is a risk that the importance and	I = 3, L = 2	**Assessment:**

at the importance and priority given to local communities' involvement in the project is downplayed or side-lined, leading to decreased social and ecological benefits and long-term sustainability post-project.	Moderate	The project's approach towards an expanded involvement of local communities is to be reviewed and confirmed by senior decision makers within NFGA and Chinese government to ensure that the project remain aligned with NFGA's vision for increased community involvement. Management / Mitigation Measures: NFGA senior officials and formulation team will consult and work closely during the PPG phase and ensure that the project documentation fully reflect the NFGA proposed vision for a closer and more expanded collaboration with local communities to maximize the ecological and social benefits.
Risk 10: There is a risk that restrictions to mobility as a result of COVID 19 (or another potential pandemic) undermines project design and implementation.	I = 3, L = 4 Moderate	Assessment: The PPG will assess the progress of COVID 19 Vaccine deployment globally, nationally and in the three provinces in scope to determine the viability of leveraging alternative local resourcing Management / Mitigation Measures: · Leverage local expertise and resourcing as required to minimize impact. · Ensure there is a business continuity plan to support virtual consultations and where possible virtual meetings during implementation. · Regularly monitoring of national CDC announcements and advisory · Ensure fallback solutions to ensure business continuity · Take remote risks just as seriously as those likely to materialize
Risk 11: Exchange rate fluctuation creates uncertainty in total GEF (US$) funding available in Yuan, and potential for decrease in dollar converted funds as a result of COVID 19 and global economic recession	I = 3, L = 4 Moderate	Assessment: The risk associated with exchange rate fluctuation will be assessed during project design phase based on historical trends and local and global political and social climate. Management / Mitigation Measures: · Continuous monitoring of exchange rate forecasts and project budget adjustment in annual plans for planned activities · Use conservative and worst-case figures to plan how activities could be

		modified and still deliver benefits · Continual forecasting and modeling against project plan
Risk 12: Private sector partners are not thoroughly vetted resulting in the risk for unintentionally partnering with companies engaging in malpractices.	I = 3, L = 2 Moderate	**Assessment:** The risk associated with the private sector engagement will be assessed using the tool developed by UNDP under its *"Policy on Due Diligence and Partnership with the Private Sector".* **Management / Mitigation Measures:** Design Phase: A decision on engagement with a partner will be taken based on the completed due diligence including a risk/benefit analysis of the partnership based on the *"Policy on Due Diligence and Partnership with the Private Sector".* Implementation Phase: The Project Manager will regularly monitor the partnership and any possible controversies surrounding the potential partner or its industry. Similarly, the Project Manager will regularly assess whether the partner is meeting the conditions of the partnership. The Project Manager will provide reports on the progress of the partnership at least once a year to their respective local office, the Regional Bureau and HQ for knowledge exchange, learning, and monitoring. Any significant issues related to the partnership should be flagged to HQ. The initial Risk Assessment and the updates need to be recorded in the Private Sector Partnerships Database in the intranet.
Risk 13: Potential for duplication between this project and the C-PAR initiative that are anticipated to be operational concurrently	I = 2, L = 4 Moderate	**Assessment:** Due to topical similarities in themes regarding sectoral mainstreaming and biodiversity management, there is a risk that during the PIF approval and PPG design and approval phases, that perceived overlap and concerns over the duplication of efforts might negatively impact this project as it moves through the approval pipeline. **Management / Mitigation Measures:** While this is a legitimate concern in principle, the project must be cognizant to clearly articulate its identity, differences in scope and areas of work. There is no collision between the policies being enhanced and those supporting the PA network in the C-PAR project. Furthermore, while the latter will operate to strengthen the PA network in China, the wildlife project is intended to focus exclusively on mainstreaming at the landscape level and in fact, are mutually beneficial in ensuring both PAs and large landscapes are managed effe

		ctively for the benefits of wildlife that go beyond artificial demarcation point s. · Ensure the C-PAR project coordination is actively engaged in the projec t design and inception phase to promote mutually beneficial but distinct sco pes. · Share annual plans and progress on KPIs. · Ongoing participation in the C-PAR Board and vice versa.

Summary analysis and project implications for climate change considerations

Effects of climate change in China

Climate change has had and continues to have significant impacts on China's ecological environment, society and economy. Even in proportion to its large size and economy China's vulnerability to climatic hazards is high. Annual losses to natural hazards average $76 billion and around one third of China's agricultural land is affected by climatic hazards such as storms, droughts, floods, land subsidence, landslides[1]. China's Nationally Determined Contribution (2016) sets out a strong commitment to a transition to a sustainable and resilient low carbon economy. While vulnerability, as indicated by poverty rates, has rapidly reduced in China, levels of risk have remained high due to equally rapid rises in exposure as rapid development has taken place in urban areas without sufficient protection to natural hazards. Future climate change is expected to have broad impacts in China, with agriculture, water resources, ecosystems, coastal and offshore ecosystems, and human health being particularly vulnerable.

China's Third National Assessment Report on Climate Change (TNAR)—released in November 2015—found that China faces significant threats from sea level rise, severe weather events, glacier melt and more as heat-trapping gases accumulate in the atmosphere. found that the average temperatures in China have increased 0.9°–1.5°C (1.6°–2.7°F) in the past century, which is more than the global average[2].

China's vulnerability to sea level rise is especially acute. More than 550 million people live in China's coastal provinces—one of the most densely populated regions on Earth. Tens of millions of people live or work in low-lying areas in major Chinese cities, including Shanghai, Qingdao and Xiamen. Sea levels off eastern China rose 93 millimeters (3.5 inches) between 1980 and 2012. It found that sea levels could rise 40–60 centimeters (16–24 inches) above 20th-century averages by the end of this century, and an increase of one centimeter (0.4 inches) could cause the coastline to recede by more than 10 meters (33 feet) in parts of China[2].

Several recent studies have reached similar results, suggesting the risk of even greater sea level rise unless global emissions of heat-trapping gases drop sharply in the decades ahead. The Third National Assessment Report found that rising seas will significantly increase risks of flooding and storm damage along China's coasts[3].

China is also vulnerable to droughts, heavy rains and heat waves. The TNAR found that climate change would increase all three. The report found that climate change could extend growing seasons for some crops in northern China but warned that climate change would bring less reliable rains, the spread of dangerous pests and shorter growing seasons for many crops. It found that changing rainfall patterns would strain reservoirs and create dam safety challenges, including at the Three Gorges Dam[4].

Melting glaciers will also create challenges for China. The TNAR found that China's glaciers shrank 10% between the 1970s and early 2000s and are likely to shrink more in the decades ahead. It highlighted potential geopolitical risks from disputes with South Asian neighbors over transboundary water resources and smaller river flows caused by shrinking glaciers.

A 2018 study found that China is especially vulnerable to river flooding as a result of climate change. The authors note that costs could be felt throughout global supply chains, many of which depend on goods shipped on China's rivers, and estimate that without adaptation measures economic damage from river flooding in China could increase 80% in the next 20 years[5].

The following projections represent the range and distribution of the most plausible projected outcomes when representing expected changes linked to future climate change and related impacts in China [6]:

- Mean annual temperature will rise by 2.43°C (1.34°C to 4.08°C) in 2040-2059 (RCP 8.5, Ensemble)
- Annual precipitation will rise by 43.03mm (-163.88mm to 302.92mm) in 2040-2059 (RCP 8.5, Ensemble)
- Annual Cooling Degree Days will rise by 432.55mm (117.60mm to 69.88mm) in 2040-2059 (RCP 8.5, Ensemble)
- Annual Maximum 5-day Rainfall (25-yr RL) will rise by 14.13mm (-32.03mm to 96.53mm) in 2040-2059 (RCP 8.5, Ensemble)

The Chinese government has always attached great importance to addressing climate change. President Xi Jinping proposed to implement a national strategy for actively addressing climate change. This includes advancing and guiding the establishment of a global climate governance system featuring equity, rationality and win-win cooperation. The local governments and relevant departments have adhered to the guidance of Xi Jinping thoughts on ecological civilization, implementing the arrangements and requirements of the National Conference on Ecological and Environmental Protection, as well as by implementing the 'National Master Plan for Momentous Project on Major Ecological Systems Protection and Restoration', as well as the 'Plan for Forestry Development, Forestry Action Plans to Adapt to Climate Change (2016-2020)', and the 'Plan for Plan for National Grassland Protection, Construction and Utilization and the Plan for Recuperation of Cultivated Land, Grassland, Rivers and Lakes (2016-2030)', and made further progress in addressing climate change proactively. The Government has recognized this progress but also the challenges ahead and is committed to a series of policy reforms that are summarized in the 2019 MEE white paper titled 'China's Policies and Actions for Addressing Climate Change'[7] (Also, see Table 2 of the PIF which provides a summary of additional policies and legislation relevant to the scope of biodiversity, protected areas and wildlife protection which can be viewed as a complementary set of Nature Based Policy Solutions for CCM and CCA). These important recent and ongoing policy reforms recognize the need to increase resilience in forests and other ecosystems, coastal zones, and coastal ecosystems, as well as human health, disaster risk prevention and reduction. This project will follow guidance from all of these documents to integrate into the overall climate agenda for China.

Table 10: Climate Risk Analysis

Risk	Potential risk	Project Plans
Are the project's outcomes at risk because of climate change?	Moderate	The project is designed to increase ecosystem resilience to climate change impacts by reducing negative impacts on wildlife and ecosystems from unsustainable practices and increasing the management effectiveness and connectivity of protected areas (i.e. CBC and Ecological corridors). The project will work under the GoC's strategies and MEA commitments to ensure long-term climate resilience. Further assessment (i.e. climate screening) will be undertaken during PPG to consider project site level potential climate change impacts on project activities in short-term and longer-term and to ensure that measures are reflected in project design to support climate-proofing and resilience of project activities and impacts as much as possible. It will also assess institutional capacity and information needs to enhance resilience to potential climate change impacts. During the PPG phase, the proposed project activities will be screened using the climate screening tool developed by the World Bank. Any identified climate change adaptation and mitigation needs for the proposed project activities will be incorporated in the project ESMF. It will identify specific management measures in design of the project to ensure that activities are environmentally sustainable and supporting best practices managed for their climate risks and improving protection and management of critical ecosystems to help to increase the overall resilience of the natural systems to climate risks in the areas compared to business as usual.
How has climate sensitivity been addressed?	Medium	Although no climate sensitivity data was made available at the project site level during the PIF phase, the project recognizes that changes have occurred and are occurring and will plan to improve community resilience to climate change impacts by promoting more diverse livelihoods opportunities that reduce reliance on h

		arvesting of natural resources in local economies. As mentioned above, a climate screening will be carried out to assess the vulnerability of sites and people to climate change impacts using the tools recommended by the Intergovernmental Panel on Climate Change (IPCC), and will develop guidelines and schedules for on-going monitoring of climate change impacts.
Have resilience practices and measures to address projected climate risks and impacts been considered?	Medium	Demonstration sites have a variety of forest ecosystems ranging from tropical rainforests and temperate virgin forests to high-altitude bamboo forests. Affected by climate change, the frequent occurrence of extreme weather, such as drought, flood, forest fires, heat-wave and cold snaps are a common risk. Easily accessible, open, and degraded forest are far more vulnerable to the impact of these extreme weather events. An objective for this project is increased area of intact forest (i.e. restoring an area about 2,200 ha), which is much less vulnerable to the effects of climate and fire than fragmented landscapes.
What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?	Low	The main technical capacity to be developed is related to the integration of climate change considerations in multi-use landscape planning processes. These considerations will be fully considered in the capacity development packages under outputs 1.1.1 and 2.1.1. Climate change considerations will also be embedded in trainings and other capacity development efforts that are part and parcel of any biodiversity friendly livelihood improvement activities and restoration efforts.

[1] ADB, Addressing Climate Change Risks, Disasters, and Adaptation in the People's Republic of China, 2015.

[2] Bing Wang et al., "Comprehensive analysis on China's National Climate Change Assessment Reports," Frontiers of Engineering Management (March 2019)..

[3] Liu Zhenhe, “Main Conclusions of China’s 3rd National Assessment on Climate Change,” 360doc.com (January 13, 2016); Ying Qu et al., “Coastal Sea level rise around the China Seas,” Global and Planetary Change (January 2019); Hu Yiwei, “Why Sea Level Rise is a Big Deal for China,” CGTN (June 8, 2019); Chris Buckley, “The Findings of China’s Climate Change Report,” New York Times (November 30, 2015); Chris Buckley, “Chinese Report on Climate Change Depicts Somber Scenarios,” New York Times (November 29, 2015); National Bureau of Statistics, “Tabulation on the 2010 Population Census of The PRC” (2010).

[4] Chris Buckley, “The Findings of China’s Climate Change Report,” New York Times (November 30, 2015); Chris Buckley, “Chinese Report on Climate Change Depicts Somber Scenarios,” New York Times (November 29, 2015)

[5] Potsdam Institute for Climate Impact Research (PIK), “China floods to hit US economy: Climate effects through trade chains,” ScienceDaily (May 28, 2018).

[6] https://climateknowledgeportal.worldbank.org/country/china

[7] See http://english.mee.gov.cn/Resources/Reports/reports/201912/P020191204495763994956.pdf

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

The proposed institutional structure will be confirmed during the PPG phase. The preliminary proposal is that a Project Management Office will be embedded within the Government Implementing Partner (Executing Entity) the National Forestry and Grassland Administration (NFGA). The PMO will be responsible for overseeing project monitoring and evaluation and ensuring a coordinated approach is taken across project demonstration sites.

UNDP as GEF Agency will ensure that project monitoring and evaluation is conducted in accordance with established UNDP and GEF procedures, including completion of project inception report, annual project implementation reviews (PIR) and mandatory independent mid-term review and terminal evaluations. This oversight will be provided by the UNDP Country Office in China with support from the UNDP-GEF Regional Technical Advisor in Bangkok. UNDP will conduct yearly visits to project sites based on an agreed upon schedule to be detailed in the project's Inception Report/Annual Work Plan to assess firsthand project progress. A Project Steering Committee will be established and provide overall guidance and decision-making for the project. This will be chaired by the NFGA and comprised of related national Ministries and provincial authorities, along with UNDP, with membership to be finalized during the PPG phase.

NFGA will coordinate the program with other biodiversity and wildlife projects in China. NFGA is the duly appointed lead agency for coordination of all programs relating to wetlands conservation, wildlife conservation and wildlife trade. NFGA is the state party for such instruments as CITES, RAMSAR and the EAAF Partnership. This role provides the opportunity for NFGA to ensure that project activities are coordinated with – and supportive of – the efforts of other partners.

This project has been designed to complement and supplement relevant GEF-financed projects as outlined below:

· GEF-5 'Main streams of life' (MSL) wetlands program: the MSL program, supported by UNDP and FAO, comprises one national policy and coordination project and six provincial projects. The program has had many successes with policy mainstreaming and PA sub-system strengthening at a provincial level, and in improving site-based management of wetland PAs including co-management with local communities. The MSL child projects are largely reaching their operational closure over 2018-2019 and most will have closed by the time the proposed project would commence implementation. The proposed project is designed to build off the successes and lessons learned by the MSL program. Great attention will be placed over the PPG phase in identifying these lessons and integrating them fully into the detailed design of project activities, and in the projects' knowledge management and coordination approaches.

· GEF-6 China's Protected Area System Reform (C-PAR) program: The C-PAR program, supported by UNDP, CI and FECO, received CEO Endorsement of its six child projects. The program has been implemented in parallel with the proposed project, but a few years ahead. This provides a good opportunity to piggyback on knowledge exchange and coordination processes used by the C-PAR program, particularly as the projects all share a focus on PA sub-system strengthening. The coordination with C-PAR is proposed to include: i) While this project will have its own Project Board, there will be coordination and information exchange between the two governing bodies by inviting a member of the C-PAR Program Board to attend Board meetings of this project as an observer – and vice versa allowing this project to observe at C-PAR program level (with SFGA represented on both boards, it will be appropriate for SFGA to

take on this role; ii) Participation of C-PAR relevant subjects within technical advisory groups of wildlife management and biodiversity conservation project; iii) Inclusion of C-PAR project demonstration sites within the knowledge exchange program of wildlife management and biodiversity conservation project, such that this project can also benefit from – and share – lessons and best practices learned on PA strengthening, and view first-hand through domestic site visit the approaches being used by the project, iv) Establishment of We-Chat coordination group for relevant wildlife management and biodiversity conservation projects in China.

The C-PAR project is also expected to conduct a national level gap analysis of PA coverage to identify new area needs and re-assignment of existing PAs based on service values and functions. New PAs will be gazetted based on the analysis, expanding the national PA system. The project could benefit potentially from this gap analysis from the perspective of selecting areas for the establishment of corridors and priorities for connectivity from a broader landscape perspective. There are opportunities as well to leverage and dovetail efforts on the piloting of the 1 national and 2 provincial committees from the perspective of collaborative protected area governance.

· GEF-6 PRC-GEF Partnership Program for Sustainable Agricultural Development (C-SAP) program: The C-SAP program, supported by UNDP, FAO and World Bank is planned for launching one by one. There are five child projects within the C-SAP program including one focused on strengthening China's frameworks for IAS management and control. This proposed project will coordinate with that project to ensure that technical approaches, systems and standards for best practice IAS management reflect the learnings from that project. UNDP, as GEF Agency for both projects, can help facilitate this coordination.

· International waters projects in China and IW: Learn initiative: There are lessons to be learned from past and ongoing projects in the IW portfolio in China including in the Yellow Sea and South China Sea. Knowledge exchange and coordination can be facilitated through engagement in the online IW: Learn knowledge platform and participation in biennial IW: Learn conferences and regional events.

· Strengthening the protected area network for migratory bird conservation along the East Asian-Australasian Flyway (EAAF) in China: The Project Document has been submitted to GEF SEC for CEO approval, which is expected to be launched in early 2021. The EAAF Project covers 4 provinces including Liaoning, Shandong, Shanghai and Yunnan, Dashanbao NR in Yunnan Province is one of the pilots of the project. UNDP as GEF Agency can help facilitate this coordination; Yunnan Forestry and Grassland Bureau will also coordinate from provincial and local levels.

· Degraded Natural Forest Use Land Restoration and Management in Typical Water and Soil Erosion of China: also cooperated between UNDP and NFGA, already in the middle of PPG, which covers 5 provinces including Gansu, Chongqing, Fujian, Yunnan and Guizhou. The pilot in Yunnan is located in Xishuangbanna, UNDP as GEF Agency can help facilitate this coordination, Yunnan Forestry and Grassland Bureau will also coordinate from provincial and local levels.

In addition to the above, there are currently two biodiversity focused projects being developed in China with the support of the ADB and IUCN. The Table in Annex E aims to show basic similarities and differences between these projects. Furthermore, it aims to acknowledge the existence of these projects and the need to coordinate and generate synergies between these initiatives during PPG. Also, any mechanisms to coordinate with the above-mentioned GEF-financed ongoing projects will be defined further during the PPG phase.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

- National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD

-National Portfolio Formulation Exercise (NEPE) under GEFSEC

- Others

The rationale and policy of this project are fully consistent with broader government planning and policy at national and provincial level.

(1) Consistency with the Outline of the 13th Five-Year Plan for National Economic and Social Development

“The Outline of 13th Five-Year Plan” in Chapter 45, requested to strengthen ecological protection: "adhere to the priority protection, natural recovery is given priority to, to promote the natural ecosystem protection and restoration, construction of ecological corridor and biodiversity protection network, improve all kinds of natural ecological system stability and ecological service function, enhancing ecological security barrier. "The design concept and expected outcomes and outputs of this project are highly consistent with the content of the 13th Five-Year Plan. By establishing ecological corridors between existing protected areas in Yunnan and Sichuan provinces, wildlife circulation can be promoted, population expansion of key rare and endangered wildlife can be ensured, and the integrity of natural ecosystems can be protected to enhance the value of ecosystem services. In addition, measures such as natural restoration and engineering restoration can restore and expand the habitat area of wildlife under special protection, so as to ensure the maintenance of wildlife population and biosafety of wildlife under special protection.

The 13th Five-Year Plan also states that "major projects for biodiversity conservation will be carried out. We will strengthen the construction and management of nature reserves and intensify efforts to protect the diversity of typical ecosystems, species, genes and landscapes, carry out background survey and assessment of biodiversity and improve the observation system. The implementation of this project will strengthen the construction and management of nature reserves in Yunnan, Sichuan and other provinces, and promote the protection of typical ecosystems and key species.

(2) Consistency with China's National Biodiversity Conservation Strategy and Action Plan (2011-2030)

The "Strategy and Action Plan” in the comprehensive consideration of ecosystem types of representative, unique, special ecological function, and the species richness, degree of rare and endangered and threatened factors, regional representation, and economic purposes, scientific research value, the distribution of data, on the basis of factors such as availability, identified 35 priority zones for biodiversity conservation including terrestrial lands, inland waters and marine and coast areas. This project’s demonstration areas are all located within 35 biodiversity priority areas, namely the demonstration area in Yunnan province is located in the" South Hengduan Mountains (No 18) ", while Sichuan province demonstration area is located in the "Minshan-North Hengduan Mountains” (No 19). "Strategy and Action plan are put forward:" taking the Himalayan east edge, South and North Hengduan Mountains as the core, to strengthen the

integration of nature reserves, protect alpine valleys and primitive forest ecological system, strengthen the giant panda, golden monkey, Taxus chinensis, orchid and other animal and plant species and their habitats under special state protection. The content of this project is fully consistent with the objectives of the Strategic and Action Plan.

The NBSAP also identifies 30 priority actions and 39 priority projects, of which Priority Action 4 calls for the mainstreaming of biodiversity conservation into sectoral and regional planning. In addition to requiring relevant central government departments to formulate their own sectoral biodiversity conservation strategies and action plans, it also states "provincial government is required to set up the local biodiversity conservation strategy and action plan" and "the valley or species biodiversity strategy and action plan". This project was designed in Yunnan province to make the priority to protect the golden monkey a provincial wildlife conservation strategy and action plan and set up in the province area of the giant panda to also prioritize a conservation strategy and action plan. Priority actions 29 and 30 propose the establishment of public participation mechanisms and biodiversity conservation partnerships involving non-governmental organizations and the private sector. This project is fully reflected in the design of its outcomes and outputs. In addition, the Strategy and Action Plan paid great attention to the protection of rare and endangered wild animals, such as the 27th Priority Project put forward to establish special protection for the species listed in National Protected Rare and Endangered Animals and their habitats in situ protection measures, through the implementation of the save program for the rare and endangered wildlife species to enlarge its habitat, in order to ensure its survival and reproduction.

Therefore, the objectives and content of this project are highly consistent with the Strategy and Action Plan, and the outcomes and outputs of the project implementation will provide the best practices for the implementation of the Strategy and Action Plan.

(3) Consistency with the Ecological and Environmental Protection Plan of the Yangtze River Economic Belt

The Chinese government attaches great importance to the Yangtze river economic belt of the ecological environment protection work, published in 2017 which includes the planning of ecological environment protection in the Yangtze river economic belt, to promote the development of the Yangtze river economic belt on the premise of not destroying the ecological environment and providing protection to ensure no exploitation. The way of thinking should be clear and hard constraints should be established so that the ecological environment of the Yangtze River can only be optimized rather than deteriorated. This project's demonstration area is in Yunnan and Sichuan provinces and protects the golden monkey (including Yunnan golden monkey, Sichuan golden monkey, and Guizhou golden monkey and panda) in the distribution area in the Yangtze river shelter-forest region. The planning of ecological environment protection in the Yangtze river economic belt of ecological environment protection measures will be conducive to the protection of the wildlife in the region providing a political guarantee for the successful implementation of this project. By establishing ecological corridors and restoring habitats, the project effectively preserves key wildlife populations and their habitats, and also contributes to the protection of the ecological environment of the Yangtze River Economic Belt. Therefore, this project fully conforms to the objectives, contents and requirements of the Ecological and Environmental Protection Plan for the Yangtze River Economic Belt.

Its relevance to major national and international plans and partnerships is summarized in Table 11 below.

Table 11: Summary of major relevant conservation projects and initiatives

Plan/Project	Date	Content	Project relevance
13th Five-year Plans	2016-2020	It is a programmatic document for the national economic and social development, including the chapte r on ecological and environmental	Specific policies and project concepts related to biodiversity conservation in t he 13th Five-Year Plan have been impl emented by the local governments of t

		protection, especially the specific requirements and strategic tasks for the protection of biodiversity	he demonstration areas, which have given great support to this project. The plans underline the importance of achieving harmony with environment and creating an 'ecological civilization' and 'Beautiful China'
China National Biodiversity Conservation Strategy and Action Plan (NBSAP)	2011-2030	It proposes China's biodiversity conservation goals, strategic tasks, priority actions and projects within 20 years. It is a blueprint for biodiversity conservation in China.	The theme of this project is biodiversity conservation. Wildlife protection, corridor construction and habitat restoration of nature reserves are important contents of biodiversity protection, which are closely related to this project
CBD Programme of Work for Protected Areas (PoWPA)	Updated at each COP bi-annually	Make many resolutions on "protected area" issues, including "the protected areas planning" adopted in COP7, and "voluntary guidance on effective governance models for management of protected areas" adopted in COP 14 (2018)	The demonstration areas of this project are nature reserves and national parks in Yunnan and Sichuan provinces, and the international policy has a great influence on this project. Such as the issues in PA mainstreaming, and co-management approaches, transfrontier issues (e.g. migrating species) and climate resilience are all emphasized
China Biodiversity Partnership and Framework for Action (CBPF)	2007-2017	Umbrella framework for action to coordinate and build momentum around the programs of different partners under CBD in China	Creates synergy with broader conservation work in biodiversity areas – legal framework, PA strengthening in general, information sharing etc. The project fills gap in the framework.
Guidelines on the establishment of a system of nature reserves dominated by national parks	China State Council	Overall objectives: To establish a system of natural protected areas with Chinese characteristics, with national parks as the main body, promote the scientific setting of various natural protected areas, and establish new systems, mechanisms and models for the protection of natural ecosystems.	The document sets out guidelines, policies, major tasks and scientific management methods for national park management in the future. And the demonstration site of our project is in the Giant Panda National Park, which is very close.

(4) Consistency with China’s vision for “Ecological Civilization”

The concept of ecological civilization was written into the Chinese constitution in 2018 as the basis for articulating its vision of sustainable development across three dimensions – environmental, economic and social, as well as with specific features of Chinese political civilization, aspects of Chinese governance, and core elements of the Chinese sustainable economic development agenda. The concept has been adopted by the highest levels of political leadership and has gradually gained traction. It is regarded as the major ideological reference framework for Chinese environmental and actions at different levels of government. The position paper "Building a Shared Future for All Life on Earth: China in Action" is the long term blueprint and the themes of adopting strong policy measures, accelerated mainstreaming, improving policy and legal frameworks, improving livelihoods through co-management and ecological restoration with emphasis on the protection of rare and endangered species which all appear in the PIF have been gleaned from the document to frame its priorities. Therefore, ecological civilization provides the necessary anchor for the business case in the PIF and supports the linkages to the core business architecture through the National Biodiversity Commission going forward. COP15 and China's incoming Presidency of the 15th Conference of the Parties to the Convention on Biological Diversity is also an important entry point and unique opportunity for China on the international stage to show that it is taking the lead on the prioritization of unprecedented biodiversity loss.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

Knowledge management and knowledge sharing will be a central part of this project and is the core of Component 3, represented by its own outcome with careful attention on knowledge sharing, learning and sharing of experiences. The GEF biodiversity set-aside funding being earmarked to the project will be allocated towards South-South cooperation and Knowledge Management. A cornerstone of this effort will be the design and maintenance of a project website that will act as a "digital front door" for all project knowledge products and information. Bespoke campaigns using multi-modal channels such print media, online media, social media and television will be designed to raise public awareness and elevate biodiversity in the national consciousness with an emphasis on iconic threatened wildlife species. More importantly, through targeted events such as COP15 and those to acknowledge China's COP Presidency, awareness raising efforts will signal to the world China is best positioned and ready to meet the Post-2020 Global Biodiversity Framework and that China will actively share conservation and technological approaches, experiences and knowledge through and generated by this project.

The project will also identify, analyze and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely and within its sphere of influence. The project is expected to work with all stakeholders to develop a proper communication strategy and through it share lessons, experience and impacts inside the countries and wider across the region. Such strategy will be developed during the PPG and will be implemented as part of Component 3. The project's approach to knowledge management will focus on knowledge exchange and transfer at multiple levels:

· Cross-sectorally: between relevant national ministries that have a mandate related to ensuring sectors provide biodiversity and community benefits, and between government, private sector and communities;

· Spatially: between individual project sites/communities to ensure exchange of lessons and best practices between sites and support upscaling to other local landscapes where threatened wildlife and habitats are pervasive and in other Provinces, as well as in other countries (e.g. ASEAN, Global Wildlife Program countries);

· Institutionally: between governments at different levels, from the Prefecture level and local administrations to national ministries, as well as at the regional and global levels though enhanced opportunities for South-South cooperation and enriching knowledge platforms.

Being at the forefront of technology will also enable China - through this project and its ambitious use of innovative technologies envisioned under Outcome 3.1 - to mentor other GEF biodiversity projects and child projects under the GWP (both during implementation and post-project) through south-south cooperation on the practical use cases, application of and positive results different technologies can have on biodiversity when deployed effectively.

A knowledge management and communication strategy will underpin efforts to distill lessons and documentation of experiences, in particular the tools, guidelines and methods. Targeted communication and advocacy activities shall be organized to consistently repeat the project's key messages, particularly

the need for cross sectoral biodiversity mainstreaming through legislative dialogues, inputs to broader policy debates, engaging with academia and involving the youth in research. More detailed market research and options analysis will be undertaken during project preparation, with traceability to the requirements articulated in the Project Document.

Whist the project focus is on biodiversity mainstreaming, it will nonetheless maintain links to and seek active engagement in the Global Wildlife Programme (GWP) knowledge exchange to share biodiversity conservation approaches with high value proposition. The project's data management platform (Outcome 3.2), expected to be powered by machine learning and AI capabilities, will also support knowledge dissemination and business intelligence capabilities from site to the global level and vice versa. This will establish a baseline product from which to scale the platform and enrich the data therein. As a decision support tool, attention will be drawn to opportunities for scaling up and replication, along with the level of learning and knowledge exchange from the perspective of outcome assessment functionality.

The project is not a child project under the GWP. Notwithstanding, dissemination of lessons-learned and experiences from engagement of communities at site-level such as the creation of nature-based income-generating activities, the project will not only share its successes and challenges, but will also benefit from the extensive global network provided through interfacing with the GWP. All knowledge accumulated will assist China with scaling up and sustainability, as well as identify additional innovative and adaptable techniques to a) monitor and conserve key threatened and iconic wildlife species and biodiversity b) develop purpose-build and engaged cross-sectoral committees at national and provincial level, c) identify and develop alternative livelihood options to deter illegal activities in PA buffer zones.

9. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

Project Information

Project Information	
1. Project Title	Wildlife conservation management and sustainable development in China (working title)
2. Project Number	6607
3. Location (Global/Region/Country)	China

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the Project mainstreams the human-rights based approach
Human rights depend on a healthy environment as degraded natural resources often mean the more marginalized and vulnerable communities are most affected. The project will support the meaningful participation and inclusion of all stakeholders, in particular any marginalized individuals and groups, in processes that may impact them, including design, implementation and monitoring of the project, e.g. through capacity building and creating an enabling environment for inclusion and participation (consistent with participation and inclusion human rights principles). Additionally, through the protection of endangered, threatened and protected wildlife species and their priority habitats, a wider spatial area is protected which supports the conservation biodiversity from species to ecosystem levels, and increases the adaptive capacity and resiliency of local communities dependent on these resources, including the expansion of sustainable livelihoods opportunities. As such, the project will enhance the availability, accessibility and quality of benefits and services for potentially marginalized individuals and groups, and will increase their inclusion in decision-making processes that may impact them (consistent with non-discrimination and equality human rights principles), including climate change impacts. Following further environmental and social assessments and analysis of local demographics in the Yunnan Province and the Giant Panda National Park demonstration areas during the PPG, the detailed design of this project will incorporate a human-rights based approach following national and international guidelines such as the International Covenant on Economic, Social and Cultural Rights as well as the Universal Declaration of Human Rights, the UN Equality Act, Aarhus Convention and SDG goal 10 (world-wide equality) principles.

The human rights-based approach will be achieved by encouraging equality, inclusion, and participation the project development and implementation. Through the mainstreaming approach, a wide range of stakeholders will participate, including representatives from different levels of government, sectors as well as local communities. During the PPG, a detailed stakeholder analysis and engagement plan will be prepared together with a comprehensive list of all those stakeholders who have been consulted. Stakeholder engagement will be multi-sectoral, transparent, and inclusive, giving voice to people from macro to micro level and will capture traditions, beliefs, and socio-economic systems of the project areas so that project design is both transformative but also respecting and preserving local norms. A grievance redress and monitoring and evaluation process will be incorporated into the project design, enabling any human-rights abuses or grievances within project activities to be addressed efficiently.

Management measures will be incorporated into the project document to support the project Board, staff team, consultants, and other duty bearers to follow this rights-based approach. Human rights standards will be embedded within the capacity building and awareness raising of the team particularly with regards to local communities and vulnerable groups. Equal opportunities will be upheld within all employment that arises as a result of the project. This project therefore has the opportunity to embed transformative rights awareness within its framework.

Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment

China's gender gap is closing as the country develops but is still apparent in rural areas. A comprehensive gender analysis specific to the target demonstration sites will be conducted by a Gender Specialist during the PPG. This will determine the roles of women, identify inequalities or vulnerabilities, cultural, social, religious, and other constraints on women's potential participation and any rights issues. The key recommendations from this analysis will be captured in a Gender Action Plan and mainstreamed within the project framework, including the incorporation of age and sex-disaggregated data and gender statistics and specific, measurable indicators related to gender equality and women's empowerment. Implementation will aim to reduce gender inequalities and support rights for women in the demonstration areas through capacity development and female participation in environmental education and knowledge sharing. Gender equality will be taken into consideration in planning the procurement processes for sourcing staff and consultants, both women and men will be provided with equal access to advice and job opportunities. The project will adopt relevant guidelines such as those of the Convention on the Elimination of All Forms of Discrimination against Women, as well as UNDP and GEF gender policies.

Women's groups will be established to advise the project and offer the opportunity to discuss any grievances or issues around marginalization as a result of the project; representatives will feed back through the monitoring and evaluation process. Female representatives and leadership positions will be enabled within project design and implementation. Opportunities and choices will be given to women that should strengthen women's rights in the wider community, households, and family networks. The economic status of women, and particularly vulnerable women, will be specifically targeted for example through innovative-financing mechanisms. Marginalized groups, including women, will have equal access to training, services and capacity development offered around wildlife management and habitat protection.

Women's rights and participation will be monitored against the defined targets throughout the project; a goal will be to score at least 2 as per the UN's Gender Marker system, meaning that the project will promote gender equality significantly[1]. This project therefore has a great opportunity to empower women in environmental management.

Briefly describe in the space below how the Project mainstreams environmental sustainability

The project will mainstream environmental sustainability by fostering the adoption of landscape/ecosystem-based management approaches and strengthening biodiversity, and particularly wildlife, conservation and environmental management capacities of local partners and stakeholders at all levels (national, provincial, and local). The threats to priority wildlife and the health and sustainability of key species in the Yunnan Province and the Giant Panda National Park are multiple: overfishing; loss/degradation of habitat; population growth, economic growth and human activities (i.e. infrastructure development, urbanization, etc.); hunting, utilization and trade; alien invasive species, etc. Project activities to mainstream biodiversity in key sectors, to e

xpand strengthen protected areas, to create ecological corridors and community-based conservation initiatives will improve the conditions of priority w ildlife species, and the habitats that sustain them. The project will aim to harness the benefits of frontier technologies to demonstrate cost-effective, in novative ways of managing wildlife in broad multi-use landscapes. Project communication and knowledge management activities will raise awareness of and support for conservation and sustainable use of biodiversity among policy makers and the general public. The project design supports the imple mentation of national environmental sustainability priorities identified in country commitments under Multilateral Environmental Agreements (MEAs). I n sum, the project is based on ensuring that environmental sustainability through better and more participatory management of PAs and ecological cor ridors in the broader landscape will lead to the conservation of globally significant biodiversity and improved opportunities for local communities to be nefit from the sustainable management of natural resources.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.*	QUESTION 3: What is the level of significance of the potential social and environmental risks? *Note: Respond to Questions 4 and 5 below before proceeding to Question 6*			QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?
Risk Description	*Impact and Probability (1-5)*	*Significance (Low, Moderate, High)*	*Comments*	*Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.*
A full UNDP Risk Log will be developed during the PPG and included in the Project Document to include the usual information on description of individual risks, category/type, impact and probability, mitigation measures, owner status. At this PIF stage the following risks can be clearly identified however:				
Risk 1: The project proponent may not effectively engage and ensure participation of all st	I = 4 P = 2	Moderate	As a result of the aggressive schedule to pull together the content for, assemble and submit the p	**Assessment:** Discussions with communities in the project landscape have commenced. The proposed project includes sta

akeholders, including women, and ethnic minorities, during th e project design and the imple mentation phases resulting in violation of human rights. Som e activities may require FPIC a nd this has not yet been secur ed. (Principle 1: Q1, Q2 & Q3; Princ iple 3 - Standard 6: Q1, Q2, Q3, Q6, Q9)			roject concept for approval prior to the deadline, consultations we re held at the national and provin cial level. However, insufficient c onsultation has been undertaken with local stakeholders.	keholder engagement strategies supporting project int erventions, including engagement with women's group, ethnic minority communities. Assessment of the pote ntial impacts of the project on rights and interests, lan ds, territories, resources, and traditional livelihoods is a lso needed, and will be conducted during the PPG. Con sultations with relevant stakeholder groups will be und ertaken during the PPG phase. Consultations are sche duled, and consultant summaries will be included with the Project Document. **Management:** During the PPG, an Environment and Social Managem ent Framework (ESMF) will be prepared in addition to: · A comprehensive Stakeholder Engagement Pl an · A comprehensive Gender Mainstreaming Pla n. · GRM (draft/outline) FPIC will be required based on the activities proposed on the PIF, and procedures for FPIC will be included in t he ESMF. Please note that FPIC may need to be secure d multiple times during the project timeline. At this stage, it is anticipated that the ESMF will find th at the following safeguards will be required during impl ementation: Ethnic Minorities Plan; FPIC; and Livelihoo d Action Plan. These requirements will be confirmed d uring the PPG.
Risk 2: The Project could poten tially restrict availability, quality of and access to resources or	I = 2 P= 3	**Moderate**	The project will seek to improve management effectiveness of th e Giant Panda National Park. In	**Assessment:** The project will be designed and implemented in an inc

basic services, in particular to marginalized individuals or groups (Principle 1: Q1, Q2 & Q3; Principle 3 – Standard 3: Q9; Standard 5: Q2; Standard 6: Q1, Q2, Q3, Q6, Q9)			addition, the project will establish three ecological corridors and engage communities in community-based conservation initiatives. Note that by reducing predatory/high impact human activities in these areas, there is the possibility that the areas will become biodiversity refugia that actually help to restore ecosystem services and end up providing a net benefit to local communities. Some of the conservation centered planned activities may lead to more restricted access to natural resources that are used by local communities.	lusive and participatory manner. Communities will be consulted before and throughout the process of establishing the ecological corridors and strengthening of PAs, including potential new regulations on resource use practices; and the project will work to strengthen community participation in biodiversity/wildlife management, including management of PAs. Similarly, local communities will be consulted on new regulations, and will be provided with information, training, and business / financing opportunities to transition from unsustainable practices to other livelihoods such as tourism, employment wildlife conservation / management, etc. PA staff will be capacitated to effectively engage in broader landscape issues, conserve globally-threatened wildlife and involve local communities and stakeholders on key wildlife protection measures using a human rights approach. Management: As mentioned above, during the PPG phase a stakeholder engagement plan and an Environmental and Social Management Framework (ESMF) will be developed and the SESP will be revised based on further assessments, on information secured following project site visits, and on more extensive stakeholder consultations as the project is developed further and a Livelihood Action Plan (LAP) and/or Ethnic Minorities Plan will be developed if deemed necessary.
Risk 3: Prevailing gender biases could unintentionally discriminate against women, limiting or adversely impacting their possibilities for accessing opportunities and/or influence on project activities.	I = 3		Although there is remarkable progress on gender issues in the policy area, gender mainstreaming still needs to be actively promoted to ensure women's empowerment. If not actively pursued, less engagement of women could potentially occur.	Assessment: A comprehensive Gender Analysis (GA) is needed to clarify relevant gender concerns and determine how mainstreaming of women into the project interventions can be ensured. It will focus on providing specific trainings for women, to best facilitate women livelihood activities and ensuring equal pay. During the project development phase specific consultations with the relevant wo

(Principle 2: Q2 & Q4)	P = 2	Moderate		men's groups or their representatives will be undertake n by the project development team. **Management:** Develop and implement a comprehensive Gender Main streaming Plan. Develop gender mainstreaming indica tors in the project Results Framework and periodically monitor progress through PIRs, MTR and TE.
Risk 4: Poorly designed or exe cuted project activities, could unintentionally damage critical or sensitive habitats and ecosy stems (i.e. Giant Panda PA), re sulting from the implementatio n of sustainable land manage ment and restoration malpracti ces. (Principle 3 - Standard 1: Q1, Q 2 & Q3; Standard 3: Q3).	I = 3 P = 2	Moderate	The project will work in one Prot ected Areas as well as 3 areas d esignated as Key Biodiversity Ar eas that will be prioritized for the establishment of ecological corri dors.	**Assessment:** The project will be designed to strengthen biodiversity conservation and sustainable natural resource manage ment in critical habitats both within and outside of prot ected areas. **Management:** The project development phase will identify a suitable models and techniques for sustainable land managem ent and restoration practices to support livelihood impr ovement. Frontier technologies for biodiversity conserv ation and management will be carefully selected durin g implementation to ensure they do not pose a threat t o ecosystems, biodiversity, or people, this will be asses sed and included in the ESMF. Technically qualified eco systems and biodiversity management specialist will be included in the PPG team to adequately manage the risk.
Risk 5: The effects of climate c hange such as floods and drou ghts could impact project area s and activities. (Principle 3, Standard 2: Q2)	I = 3 P = 3	Moderate	Project outcomes that seek to pr otect priority wildlife species an d conserve and restore key habit ats are potentially vulnerable to f uture climate change impacts, in particular any changes in habitat conditions, and migration patter ns that may result from changes	**Assessment:** The project is designed to increase ecosystem resilien ce to climate change impacts by reducing negative im pacts on wildlife and ecosystems from unsustainable practices and increasing the management effectivenes s and connectivity of protected areas (i.e. CBC and Eco logical corridors). The project is also designed to impr ove community resilience to climate change impacts b

			in temperatures, increased and/ or more severe weather incidents, and degradation of habitats.	ove community resilience to climate change impacts by promoting more diverse livelihoods opportunities that reduce reliance on harvesting of natural resources in local economies. Management: If a climate screening is needed, screening will be carried out to assess the vulnerability of sites and people to climate change impacts using the tools recommended by the Intergovernmental Panel on Climate Change (IPCC), and will develop guidelines and schedules for on-going monitoring of climate change impacts.
Risk 6: Traditional knowledge could be inadvertently harmed by project activities (2.3.2). (Standard 4: Q4.1)	I = 3 P = 2	**Moderate**	Targeted panda habitats, covering 2000 ha, will be restored in Giant Panda National Park through biological/ecological engineering and incorporating the traditional knowledge and practices of Jiang, Tibetan and Han ethnic minority communities.	To be further confirmed during the PPG and included in the ESMF and/or integrated into project design, as appropriate.
Risk 7: Unknown risks associated with alternative livelihood activities (2.4.1/2.4.2) and the innovation challenge (3.3.4) that will be selected during implementation. (Standards TBD)	I = 3 P = 2	**Moderate**		Procedures for fully screening, assessing and managing these currently unknown risks will be included in the ESMF prepared during the PPG.
Risk 8: Local communities (including ethnic minorities) living in key conservation zones of NP pilots could be or -could have been- resettled.	I = 3 P = 3	**Moderate**	Voluntary resettlement is proposed in the zoning plan for Giant Panda NP. Based on information gathered during the development of the CPAR Programme, there are approximately 170,000 people living in t	Assessment: As consultations with local stakeholders have been insufficient at PIF stage, it is unclear at this point if relocation has taken place, or will take place, in key conservation zones of NP pilots.

(Principle 3, Standard 5: Q1, Q 2; Standard 6: Q6)			~~imately 170,000 people living in t~~ he Sichuan section of the propos ed NP, but most of these are with in a zone referred to as “tradition al use”, where resettlement is no t planned. The information provi ded by the provincial governmen t is that 651 people could be offe red voluntary resettlement by the end of 2020 and those that choo se to remain will be offered com patible livelihood opportunities i n the local area. No involuntary r esettlement is planned. However, during the developmen t of this PIF, NFGA confirmed the re has been no relocation of any body in these geographies to dat e, and that the project will not su pport any/all resettlement and re settlement of anybody in any wa y.	<u>Management:</u> During the project preparation phase an ESMF will be d eveloped based on consultations with local communiti es, local government units, provincial government agen cies, and civil society representatives to ascertain the probability and potential impact of this risk, as well as t o confirm if prior displacement has taken place. GEF will not fund any project activities which require or cause resettlement. The project will avoid all resettle ment, and will not conduct any activities which entail r esettlement, either directly (i.e. activities which would r equire residents to relocate), or indirectly (activities wh ich may result in local residents deciding to leave volun tarily) at any location.

QUESTION 4: What is the overall Project risk categorization?

Select one (see SESP for guidance)		Comments
Low Risk	☐	
Moderate Risk	*	Eight *potential* risks are identified at pre-screening st age, all of which are rated as MODERATE. During PPG the following assessments and management plans w ill be produced: ESMF, comprehensive stakeholder en gagement plan, and gender mainstreaming and actio n plan (per UNDP standard procedures). FPIC proced ures will be defined and consultations towards FPIC will continue during the PPG. Depending on any revis ed assessments of risks during the PPG phase, the s pecific required assessments and management plans will be defined in the ESMF, and will likely include a Li

			velihood Action Plan and an Ethnic Minorities Plan.
	High Risk	☐	

	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		
	Check all that apply		**Comments**
	Principle 1: Human Rights	X	
	Principle 2: Gender Equality and Women's Empowerment	X	
	1. Biodiversity Conservation and Natural Resource Management	X	
	2. Climate Change Mitigation and Adaptation	X	
	3. Community Health, Safety and Working Conditions		
	4. Cultural Heritage		
	5. Displacement and Resettlement	X	
	6. Indigenous Peoples	X	
	7. Pollution Prevention and Resource Efficiency		

[1] UNDP Gender Equality Strategy 2018-2021 https://www.undp.org/content/dam/undp/library/gender/UNDP%20Gender%20Equality%20Strategy%202018-2021.pdf

Supporting Documents

Upload available ESS supporting documents.

Title	Submitted
PMIS 6607 SESP pre-screening China BD mainstreaming _21SEPT2020_revised clean	

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Mr. Peng Xiang	OFP of GEF in China	MOF OF PRC	10/14/2020

ANNEX A: Project Map and Geographic Coordinates

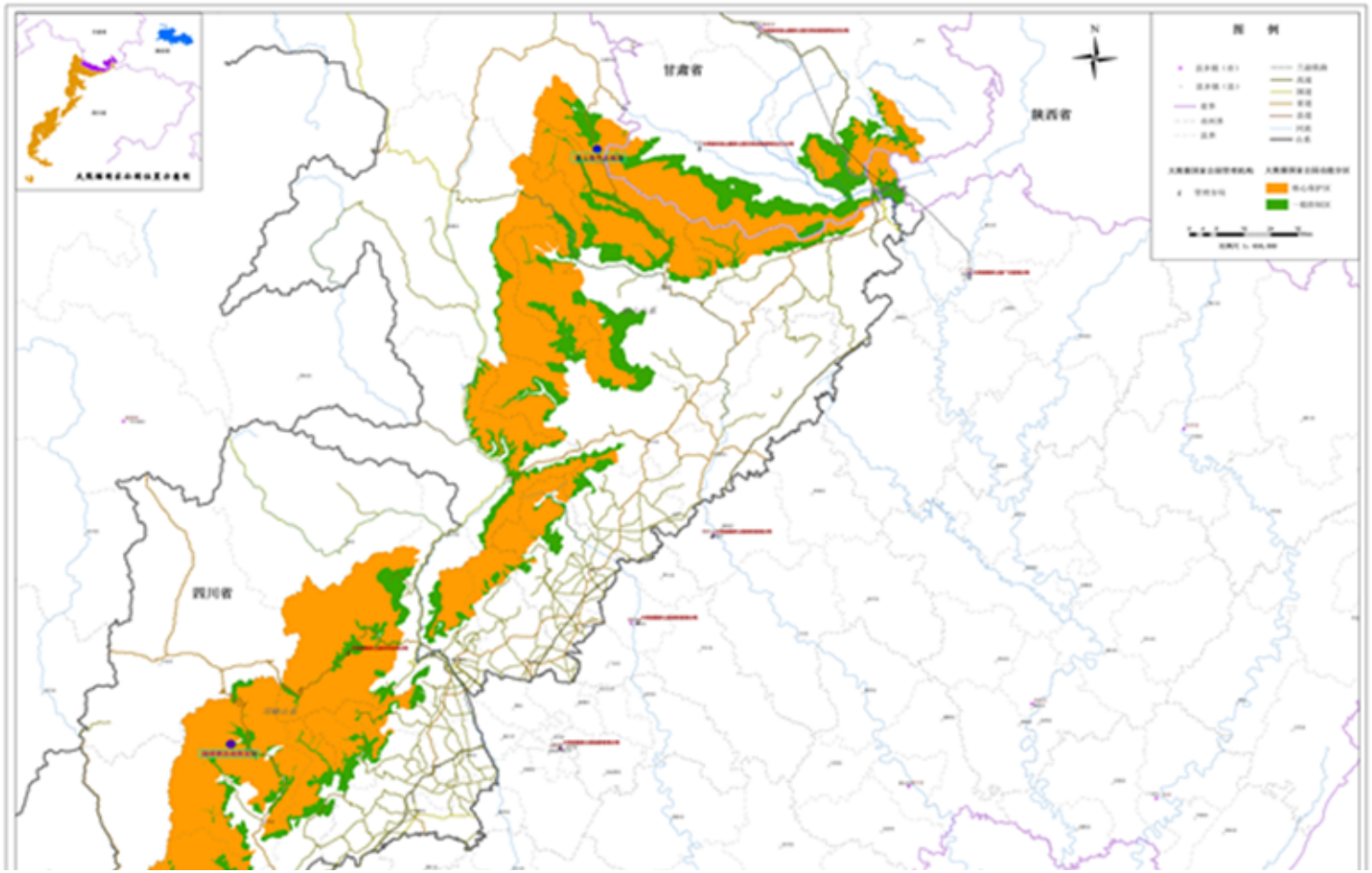
Please provide geo-referenced information and map where the project intervention takes place

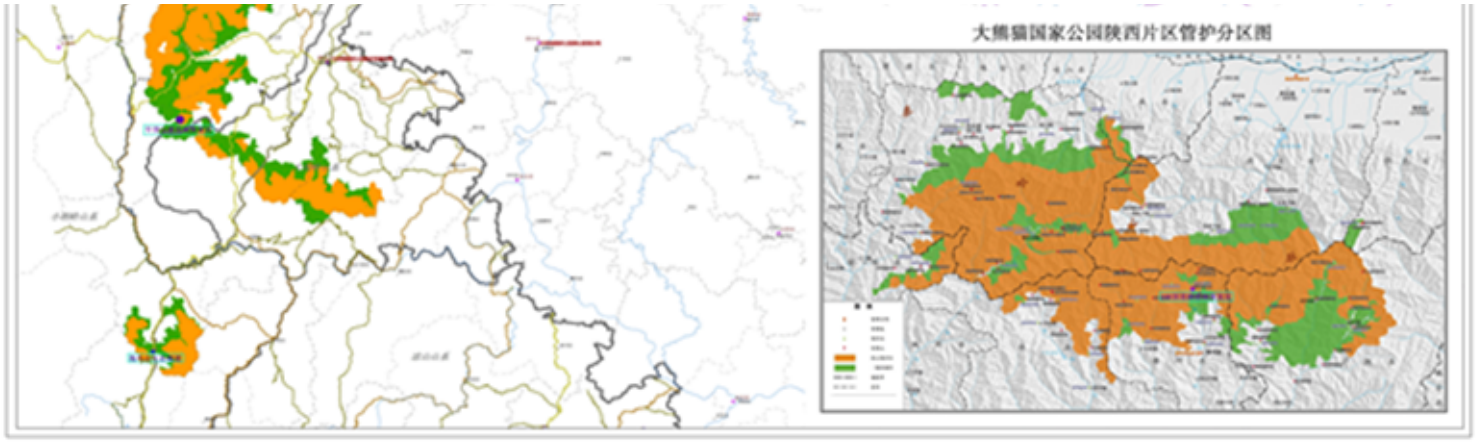
Annex A

PROGRAM/PROJECT MAP AND GEOGRAPHIC COORDINATES

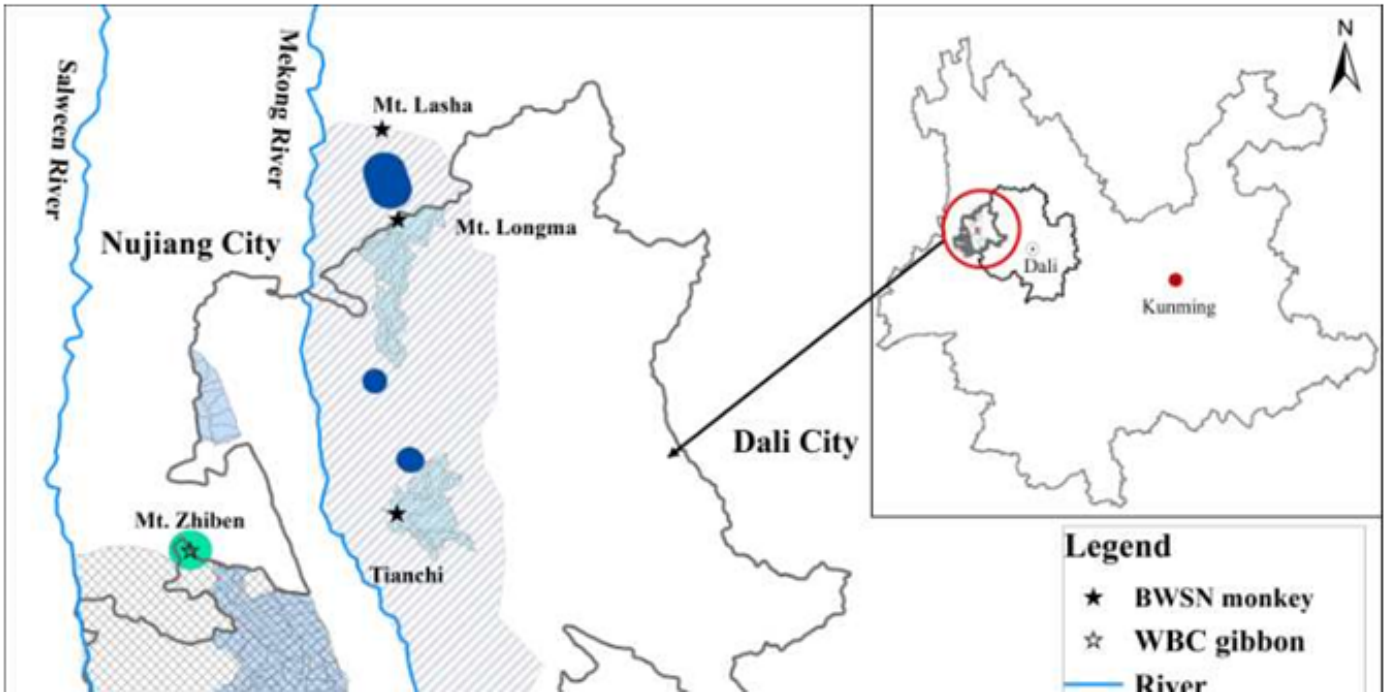
(when possible)

Map of Giant Panda National Park





Map of Dali Demonstration site



BWSN: Black-and-white Snub-nosed monkey
WBC: Western Black Crested gibbon
DA BWSN: Distribution area of Black-and-white Snub-nosed monkey
DA WBC: Distribution area of Western Black Crested gibbon
CJ FPA: Caojian Forestry protect area