SGP COUNTRY PROGRAMME STRATEGY FOR OP6

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Country: **CHINA**
OP6 resources (estimated): **US$240million**[1]

Background:

As a GEF corporate programme, SGP aligns its operational phase strategies to that of the GEF, and provides a series of demonstration projects for further scaling up, replication and mainstreaming. Action at the local level by civil society, indigenous peoples and local communities is deemed a vital component of the GEF 20/20 Strategy (i.e. convening multi-stakeholder alliances to deliver global environmental benefits and contribute to UNDP's Strategic Plan and focus on sustainable development).[2] At the global level, the SGP OP6 programme goal is to "effectively support the creation of global environmental benefits and the safeguarding of the global environment through community and local solutions that complement and add value to national and global level action."

1. SGP country programme - summary background (1 page)

1.1. In the above context, please describe succinctly (a) the most important national results and accomplishments achieved by the country programme from previous phases and up to OP5; (b) any link of these accomplishments to helping achieve global environmental benefits. Please mention aggregated results in each focal area, international awards, upscaling achieved, replication and mainstreaming of demonstration projects and key lessons learnt by the SGP country programme.

SGP China started grant-making in 2010. So far, it has supported 70 projects, which are distributed in 25 provinces, autonomous regions and municipalities. Among them, 26 are under biodiversity portfolio, 22 are under climate change portfolio, 6 are under land degradation portfolio, 5 are under international portfolio, 6 are under chemicals portfolio and there are 5 standalone capacity building and knowledge management projects. 68% projects are located in middle and west regions-the so-called undeveloped region. The country programme has achieved the following results:

- In biodiversity focal area, the SGP has enhanced communities' biodiversity conservation capacity through establishment and demonstration of different types of community co-management models in different nature reserves; the country programme also supported ICCAs' development in China and facilitated 5 ICCAs to register at UNEP-WCMC, which is the first time that ICCAs from China get

[1] The level of SGP OP6 resources is an estimated total of: (i) the GEF6 core grant allocation (to be reviewed annually by CPMT on the basis of performance, co-financing and strategic partnerships, demonstrated NSC commitment rates, and UNOPS delivery); (ii) approved STAR resources; as well as (iii) other sources of third party cost sharing & co-financing (country, regional and/or global levels). Note that countries with remaining OP5 balances that have not been pipelined, will be expected to use these balances in line with the OP6 strategic approach in order to be coherent in terms of SGP programming and results expected.

[2] The initial SGP OP6 concept was incorporated into the strategic directions for the overall GEF-6 replenishment, and subsequently approved by the GEF Council paper "GEF Small Grants Programme: Implementation Arrangements for GEF-6" (GEF/C.46/13) in May 2014.

international recognition. SGP China also supports one on-going strategic project in Guangxi to promote the ICCA recognition at provincial level. The sustainable use of biodiversity-based products is improved through utilization of traditional knowledge and sustainable livelihood approaches both within and outside protected areas and ICCAs.

- In climate change focal area, SGP has promoted models and approaches on removal of barrier to climate change mitigation through productive uses of renewable energy and improvement energy efficiency at community level. Solar energy, biogas, converting agriculture waste to biomass, energy-saving heating system, and energy –saving stoves and other affordable clean energy and energy efficiency approaches have been demonstrated at community level.

- In land degradation focal area, SGP has demonstrated and promoted sustainable land management practices through water and soil conservation, afforestation and reforestation, agro-forestry, revival of rotation grazing and sustainable livelihood development for local people.

- In international waters focal area, SGP has given priority to sites that have been included into SAPs for international waters, where initiatives of eliminating the causes of land and marine-based sources of pollution, integrated mangrove conservation and eco-aquiculture, seagrass bed conservation and sustainable fishery community management have been demonstrated. And also participatory community activities in joint biodiversity/ international waters multiple focal area projects have been supported by SGP.

- In POPs/chemical focal area, SGP has demonstrated waste management for avoiding open burning, eco-farming for reducing the use of pesticide and chemical fertilizer, and mercury-contained waste collection. SGP also enhanced target group's capacity and public awareness on chemical/POPs issue through outreach, knowledge sharing, training, workshops and other means.

So far, 13 projects have received international and domestic awards including UNDP Equator Prize, Ford Conservation & Environment Grants, China Social Innovation Award, Green China Annual Figure, and National Water Conservation Figure and so on. All the awards have helped the SGP grantee partner to draw attention on community-based conservation and to replicate and upscale their activities. Other projects in many cases have used SGP as a seed fund to leverage other resources from local government, academic institutes, private sectors and local communities. By showing the "tangible" and desirable results of projects, SGP provides solutions to other communities and regions with similar environmental problems, and it also promotes the integration of local government, community, and other funding mechanisms to solve common environmental issues. SGP provides not only fund but also capacity development for NGOs in all aspects of project and financial management, outreach and communication, and fund raising, etc. As a result of the strict project management and reporting procedure implemented by SGP, many grantees partners express that they can handle all other project after implementing SGP.

1.2 Please indicate how the experience and resources (e.g. supportive partners and networks, model projects that can be visited) of past projects can serve as a foundation for the effective implementation of SGP initiatives in OP6.

In the past 5 years of implementing SGP in China, the country programme has established a network that about 300 environment NGOs in China involved. SGP keeps frequent connection with these NGOs by sharing SGP newsletter, funding source information and other environment issues. We found that Beijing, Yunnan, Guangdong and Sichuan provinces have the most NGOs distribution, which can be considered one criterial for landscape priority during OP6. SGP has supported 10 projects in Yunnan, which is the province with richest biodiversity in China. These projects have laid a foundation to implement the landscape approach. SGP supported projects also concentrated in Beijing, Sichuan, Qinghai, Gansu, Guangdong and Guangxi where the NGOs are very active or ecological environment is vulnerable. These areas can be also considered as priority areas for OP6 and the capable NGOs could be the leading organization in geographic priority areas respectively or work together as a network in the future.

Experiences from completed projects will contribute to the 4 SGP strategic initiatives in OP6. ICCAs development and community-based conservation in Tibetan area and other ethnic minority group areas, especially empowerment of local communities, endogenous type of conservation and development, multi-stakeholders involvement and combination of conservation and livelihood, can contribute to landscape approach.

1.3. Please present an overall situation analysis for the SGP country programme in OP6, including: major partnerships, and existing sources of co-financing (including from government, international donors, and other sources).

There will be more enabling environment to implement SGP in China during OP6. The Government of China (GoC) has placed ecological conservation and environmental protection in an unprecedented height. In Sep. 2015, GoC issued the *Integrated Reform Plan for Promoting Ecological Civilization*, a plan for sweeping reforms on how China uses natural resources and can prevent pollution. The document introduces some very important institutional changes. For example, a new government body will be responsible for the ownership of all natural resources. Another single government department will be responsible for "all use-related regulatory duties and responsibilities for all territorial spaces". "Duties and responsibilities for environmental protection, which are currently spread across departments, will be assigned to one single department". These reforms are very important because in the past, a lot of environmental problems were allowed to continue because it was not clear who should take responsibility for natural resources. These resources were officially the property of 'the people'. The latest reform plan was supplemented by a measure which holds government and party officials accountable for environmental damages. As another example, municipal and county-level governments must combine different kinds of plans into a single spatial plan – or blueprint – which should cover urban, industrial, rural and protected areas. This is important because it will lead to a comprehensive cooperation and coordination of different sectors and avoid a short-term mentality of governmental leaders. Importantly, the principles mention that "social organizations and the general public should participate and play a supervising role in ecological conservation" although the detailed paragraphs are less explicit about this role, but it is assumed that the more progressive departments and local governments will apply this principle more than some others. The plan also recognizes the importance of international cooperation. It mentioned that China should "deepen exchange and practical cooperation with other countries, borrow from their advanced technology and their valuable experience". The plan introduces many other important reforms including: government procuring services to assist in the management of environmental protection; mandatory environmental information disclosure for listed companies; and establishing a new national supervision and inspection system for environmental performance of government officials.

SGP China has established partnerships with major line ministries at national level such as Ministry of Finance, Ministry of Environmental Protection and State Forestry Administration and academic institute such as Tsinghua University and Beijing University through its National Steering Committee. In OP6, the country programme will explore the opportunities to cooperate with local government at different levels especially

municipal and county level to ensure that SGP's landscape approach is in line with the above mentioned "single spatial plan – or blueprint". The local government is also the potential co-financing provider of SGP projects. From the previous experiences, many projects use SGP as a seed fund and usually can leverage resources from local government. When implementing the landscape approach, the country programme will initiatively talk to the local government and work together with the local government.

In the past 6 years, SGP has built wide NGO network in China. All NGOs are our potential partners. SGP China will continue to help grantee partners to mobilize more cash or in-kind co-financing at project level from wide channels.

2. SGP country programme niche (3 pages)

2.1. Alignment with national priorities. Please list the dates of the country ratification of the relevant Rio Conventions and relevant national planning frameworks:

Table 1. List of relevant conventions and national/regional plans or programmes

Rio Conventions + national planning frameworks	Date of ratification / completion
UN Convention on Biological Diversity (CBD)	January 5, 1993
CBD National Biodiversity Strategy and Action Plan (NBSAP)	September 15, 2010
Nagoya Protocol on Access and Benefit-Sharing (ABS)	N/A
UN Framework Convention on Climate Change (UNFCCC)	November 7, 1992
UNFCCC National Communications (1st, 2nd, 3rd)	1st: 9 November, 2004； 2nd: 8 November 2012
UNFCCC Nationally Appropriate Mitigation Actions (NAMA)	January 28, 2010： autonomous domestic mitigation actions
UNFCCC National Adaptation Plans of Action (NAPA)	N/A
UN Convention to Combat Desertification (UNCCD)	February 18, 1997
UNCCD National Action Programmes (NAP)	August 1996
Stockholm Convention on Persistent Organic Pollutants (POPs)	June 25, 2004
SC National Implementation Plan (NIP)	April, 2007
Poverty Reduction Strategy Paper (PRSP)	N/A
GEF National Capacity Self-Assessment (NCSA)	January 2006
GEF-6 National Portfolio Formulation Exercise (NPFE)	N/A
Strategic Action Programmes (SAPs) for shared international water-bodies [3]	1) The *'Strategic Action Programme (SAP) for Yellow Sea Large Marine Ecosystem'* has been endorsed in November 2009. 2) *Strategic Action Programme (SAP) for the South China Sea*

[3] Please identify existing IW regional projects and the regional SAPs adopted by countries sharing international waterbodies so as to align SGP local interventions. Please check this website to find some of the SAPs: http://iwlearn.net/publications/SAP

	has been approved in August 2008. 3) The *'Sustainable Development Strategy for the Seas of East Asia (SDS-SEA)'* under PEMSEA project has been adopted in December 2003. 4) The 'TumenNET Strategic Action Programme (SAP)' has been adopted in October 2002.
Minamata Convention on Mercury	Oct. 2013
Others (list) as relevant	

2.2. Please describe how the SGP country programme will support the implementation of national priorities in relation to the selected OP6 grant-making, as well as grant-makers+, strategic initiatives. How will civil society and community-based projects be facilitated and coordinated to help the country achieve its priorities and achieve the objectives of the global conventions (i.e. national level CSO-government dialogues on OP6 strategic initiatives, formation of network and federation, as well as grant-making in the target OP6 landscapes and seascapes)?

The SGP-China will integrate the GEF-6 strategic initiatives and priorities with national environmental priorities in the "Integrated Reform Plan for Promoting Ecological Civilization", "The 13th National Five-year Plan", China's Agenda 21, "National Ecological Conservation and Construction Plan (2013-2020) , China National Biodiversity Conservation Strategy and Action Plan(2011-2030), China National Plan on Climate Change (2014-2020), National Desertification Prevention and Control Plan (2011-2020) and National Implementation Plan for Stockholm Convention. In these above national plans, there are identified priority areas for biodiversity conservation, climate change, desertification and chemicals control, which lay the foundation for SGP to select its focal landscapes/seascapes in China.

In OP6, SGP China will help the country achieve its priorities and the objectives of the international conventions focusing on the following strategic initiatives:

Landscape/seascape approaches: SGP China will select three representative and typical landscapes/seascapes that the places permit surrounding communities to interact with the area, contributing to the area's sustainable management and engaging with its natural and cultural heritage. The landscape approaches that will be tested in these areas will focus on the integral balance between people and nature and activities that sustain the nature resources such as traditional agricultural and forestry systems, community conservation by custom laws and sustainable use of biodiversity products that ensure the continued protection or ecological restoration of the area. The network of NGOs/CBOs and the multi-stakeholders decision-making mechanism will be established at landscape level to guarantee the integrated landscape approaches to be tested.

Through this landscape/seascape approaches, SGP will encourage communities to establish small nature reserves or protected plots and ecological corridors based on the previous experiences of ICCAs development in China, and intensify the governance and management of these small nature reserves or ICCAs as a contribution to China National Biodiversity Conservation Strategy and Action Plan (2011-2030).

Climate-smart agro-ecology practices: SGP China will target small farmers and rural organizations such as farmer's cooperatives to support their agroecology practices. China has a long history on complex agricultural ecology system such as mulberry trees-fish ponds system, rice-fish-duck intergrowth system, livestock-biogas-fruit tree/vegetable system and terraced plowing etc. This strategic initiative could be combined with the above mentioned landscapes/seascapes. Within the selected landscapes/seascapes, SGP China will support the revival of traditional agricultural ecology system to diversify the farming systems including promoting mixtures of crop varieties, intercropping systems, agroforestry systems, livestock integration, etc. which will contribute to both biodiversity conservation and prevention of land degradation.

Low carbon energy access co-benefits: SGP China will support local communities within selected landscapes to identify and promote climate change mitigation barrier removal models or approaches, including promoting energy efficiency facilities, utilization of renewable energy such as solar energy, biogas and biomass energy and resources recycling to reduce carbon emission and strengthen forest sustainable management and afforestation to increase forest storage and enhance carbon stocks in forest. The country programme will focus on supporting low cost and affordable energy solutions in rural and urban communities, which will also contribute to poverty reduction and local livelihood improvement considering that more than 500 million people in China still lack access to electricity. SGP projects will try to combine with the low carbon community demonstration sites promoted by the government of China, which will contribute to the China National Plan on Climate Change (2014-2020).

Local to global chemical management coalitions: SGP China will enhance NGOs and communities' capacity and awareness on the impacts of toxic chemicals on human health and environment through establishing community organization network and explore cooperation opportunities with other organizations such as IPEN and others. Within the selected landscapes/seascapes, SGP will focus on promoting organic farming to reduce the use of chemical fertilizer and pesticide and strengthening solid waste sorting, collection and recycling to avoid open burning. The country programme will also support to promote green products certification and green consumptions for chemical free products. This initiative will contribute to National Implementation Plan for Stockholm Convention.

2.3. As part of the OP6 strategic directions at the national level, please describe below (with a short summary in Table 2) the potential for complementary and synergy with:

- Government funded projects and programmes;
- UNDP CO/UN System strategies (CPD, UNDAF, Strategic Plan etc.);
- GEF funded projects in the countries (i.e. National Portfolio Formulation Exercises (NPFEs), ongoing and planned FSPs, MSPs, and Integrated Approach Pilots (IAPs) as relevant)

Table 2. SGP contribution to national priorities / GEF-6 corporate results

SGP OP6 strategic initiatives	GEF-6 corporate results by focal area	Briefly describe the CPS niche relevant to national priorities/other agencies [4]	Briefly describe the CPS contribution to UNDP strategic programming

[4] Describe only for those OP6 strategic initiatives which will be programmed by the SGP country programme.

Community landscape/seascape conservation	*Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society*	The CPS will contribute to the following national priorities in NBSAP: •Improve conservation in priority areas of biodiversity conservation •Improve biodiversity conservation outside nature reserves •Establish and enhance bodies for biodiversity conservation and management and improve the inter-agency coordination mechanism •Ensure sustainable use of biodiversity	The CPS will contribute to the following outcomes of UNDAF: •A greater proportion of the population enjoy improved living conditions and increased opportunities for economic, social and cultural development. •More people enjoy a cleaner, healthier environment as a result of improved environmental protection and sustainable green growth
Innovative climate-smart agro-ecology; Community landscape/seascape conservation	*Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)*	The CPS will contribute to the following aspect of , China National Plan on Climate Change (2014-2020): •Increase carbon credit of forest, farmland, grassland and wetland.	The CPS will contribute to the following outcomes of UNDAF: •A greater proportion of the population enjoy improved living conditions and increased opportunities for economic, social and cultural development. •More people enjoy a cleaner, healthier environment as a result of improved environmental protection and sustainable green growth
Community landscape/seascape conservation	*Promotion of collective management of trans-boundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services*	The CPS will contribute to the following national priorities in NBSAP: •Strengthen the conservation and restoration of typical coastal and marine ecosystems of mangrove forest, coral reefs and sea grass bed and improve the ecological environment of off-shore and coastal areas.	The CPS will contribute to the following outcomes of UNDAF: •A greater proportion of the population enjoy improved living conditions and increased opportunities for economic, social and cultural development. •More people enjoy a cleaner, healthier environment as a result of improved environmental protection and sustainable green growth
Energy access co-benefits	*Support to transformational shifts towards a low-emission and resilient development path*	The CPS will contribute to the following aspects of , China National Plan on Climate Change (2014-2020):	The CPS will contribute to the following outcomes of UNDAF: •A greater proportion of the population enjoy improved

		•Prioritize the energy structure including promotion of diverse utilization of solar energy, development of biomass energy and other renewable energy. •Strengthen energy conservation including implementation of green building plan and great development of recycling economy.	living conditions and increased opportunities for economic, social and cultural development. •More people enjoy a cleaner, healthier environment as a result of improved environmental protection and sustainable green growth
Local to global chemicals coalitions	*Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern*	The CPS will contribute to the following priority of National Implementation Plan for Stockholm Convention: •Strengthen capacity building and establish a long-term, effective mechanism to control POPs releases.	The CPS will contribute to the following outcomes of UNDAF: •A greater proportion of the population enjoy improved living conditions and increased opportunities for economic, social and cultural development. •More people enjoy a cleaner, healthier environment as a result of improved environmental protection and sustainable green growth
CSO-Government dialogue platforms	*Enhance capacity of civil society to contribute to implementation of MEAs (multilateral environmental agreements) and national and sub-national policy, planning and legal frameworks*		
Social inclusion (gender, youth, indigenous peoples)	*GEF Gender Mainstreaming Policy and Gender Equality Action Plan and GEF Principles for Engagement with Indigenous Peoples*	•Expedite the development of modern agriculture, expand the opportunities of increasing farmers' income, improve the production condition and livelihood in rural area, and perfect the system and mechanism of rural development •Carry out the basic national policy of gender equality, implement *Program for the Development of Chinese Women*, fully develop human resources of women,	The CPS will contribute to the following outcome of UNDAF: •A greater proportion of the population enjoy improved living conditions and increased opportunities for economic, social and cultural development.

		safeguard women's legitimate rights, facilitate women's employment and career development, enhance women's capacity to engage in economic development and social management, intensify women's labour protection, social welfare, health care, poverty reduction and elimination and legal aid, perfect gender statistic system and improve the environment for women's development.	
Contribution to global knowledge management platforms	*Contribute to GEF KM efforts*		The CPS will contribute to the following outcome of UNDAF: The effectiveness of China's engagement in international cooperation is enhanced for the mutual benefit of China and the world.

3. OP6 strategies

3.1. *Cross-cutting OP6 grant-making strategies*

From the national level scoping exercise described in Table 2, please identify critical cross-cutting OP6 projects that can be supported at national level for non-landscape/seascape-based projects. Examples may include important initiatives pertaining to capacity development; knowledge management; policy and planning; CSO-government dialogue platforms; as well as fellowships for indigenous peoples.[5]

As 70% of grant will invest in the projects within selected landscapes/seascapes, 30% of grant will support projects outside the landscape/seascape(s). Priorities may be given to projects outside the selected landscape/seascape(s) that 1) develop CSO's capacities on GEF focal areas, projects management, and organization's internal management and development; 2) build network for CSO's cooperation and learning such as ICCAs coalition, CSO's network on ocean protection, and network on urban people support countryside etc. ; 3) leverage other resources and build partnerships with wide stakeholders including local government, private sectors, academic institutes and media to expand the impact of SGP; 4) help translate SGP lessons into policy or promote replication or upscaling of SGP project results;5) promote innovation on combination of environmental protection, sustainable livelihood and community empowerment.

SGP will continue to build capacity for stakeholders, especially local NGOs and CBOs. The country programme will organize stakeholders meeting at each selected landscape/seascape before 'call for proposals' to explain SGP strategy in OP6, landscape approach, four new initiatives and project proposal development to the local government, potential grantees and other partners. This will help the local stakeholders to

5 The above OP6 cross-cutting projects may use up to 30% of the SGP OP6 grant allocations (Core and STAR) for projects outside of the target landscapes and seascapes (to be described through the detailed baseline assessment).

understand landscape approach and build partnership for implementing the landscape approach in the coming future. After the NSC approve the projects, the country programme will organize inception meeting for all grantee partners to provide trainings on GEF focal areas, SGP targets, project management and financial management, gender mainstreaming and other related issues. The country programme will also request each project to include capacity development component into their project proposal. During the projects implementation period, middle-term evaluation workshop will also help the stakeholders on adaptive management through reviewing indicators and outputs against the targets set at the beginning of project cycle. The projects wrap-up meeting and final evaluation will be organized at the end of projects cycle, which will help the stakeholders and grantee partners develop their capacity on solving environmental problems, evaluating projects implementation and building network to solve common problems with more partners.

3.2 *Landscape/seascape-based OP6 grant-making strategies* (2 pages)

Please describe the selected landscape or seascape(s) which will be the focus of OP6. Where relevant, please describe the process adopted to formulate the baseline assessment, including the participatory engagement of stake-holders in the CPS design (see Annex 1). Please also provide a **map of the area** and if relevant photos.[6]

The country programme will give priority to initiatives of community landscape/seascape conservation and energy access co-benefits according to STAR fund availability. The initiatives of innovative climate-smart agro-ecology and local to global chemicals coalitions will be integrated into the landscape/seascapes conservation to deal with land degradation, agriculture biodiversity, sustainable livelihood, organic farming and waste management within the selected landscape/seascapes.

The country programme has identified three landscape/seascapes as priority areas for SGP China. The process of landscape/seascapes identification started with the first stakeholders' consultation meeting on CPS development, which is attended by representatives from Ministry of Environmental Protection, Chinese Academy of Sciences, Peking University, Ecology Society of China, UNDP CO and SGP China team. At this meeting, the outline of SGP China programme, the SGP OP6 strategy and main changes in OP6 and landscape/seascapes approach have been introduced to the participants. The participants has agreed the criteria of landscape/seascapes selection should consider the representativeness of landscapes; the link with previous SGP projects and other national/ international programme; the interaction between human and nature and the sufficient candidate NGOs distribution. After this meeting, the grantee partner Ecology Society of China collect existing data and information about the rate of climate change, topography, biodiversity, distribution of ethnic diversity, distribution of poverty counties, distribution of eco-fragile areas, distribution of environment NGOs, and the distribution of priority areas of NBSAP in China. All the information and data are weighted and then make a superposition map to show the priority areas. The CPS development team also conduct a sample field survey on social-economic-ecological situation in one township in Yunnan. Then the second stakeholders consultation meeting was organized, which was attended by representatives from Chinese Academy of Science, Peking University, State Forestry Administration Survey Scheme and Desiging Institute, The Nature Conservancy (TNC), Fauna & Flora International (FFI), Yang Shanzhou Afforestation Foundation of Yunnan Province, Shanshui Conservation Centre and NSC members from UNDP, State Forestry Administration (SFA) and China Environmental Protection Foundation (CEPF) and Peking University, as well as SGP team. During this meeting, the CPS development team presented 8 candidates landscape/seascapes through the priority superposition map. The participants discussed the concerns of selection and identified 3 important landscape/seascapes, which are 1) Northwest of Yunnan-Hengduanshan Mountain which is the globally significant biodiversity hotspot and also one of the priority areas of

[6] The countries could focus on existing landscapes, select a landscape through stakeholder consultation process or conduct a baseline assessment. Please note that in some SIDS and small countries it may not be practical to identify separate landscapes, hence the country program strategy may cover the entire country territory.

biodiversity in NBSAP 2) Qinghai-Tibetan Plateau-Sanjiangyuan (sources of three rivers) area which is the important water source area for Asia and also one of the priority areas of biodiversity in NBSAP 3) Beibu Gulf coastal zone which is the globally significant biodiversity hotspot and part of South China Sea. After the second stakeholders' consultation meeting, the CPS development team start to prepare the baseline assessment for the 3 selected landscape/seascapes by reviewing existing document literature from government and academic institutes and interviews with local stakeholders.

Due to the large area of selected landscape/seascapes and limited budget, the local consultations and survey are conducted through different ways. For the alpine gorge landscape of Northwest of Yunnan-Hengduanshan Mountain, the CPS development team has visited the site and conduct consultation with the local government, NGOs and community representatives including Baima Snow Mountain Nature Reserve Administration, Yunnan Golden Monkey Conservation Association, Mt. Laojunshan Community Biodiversity Conservation Association of Yulong County, Yunnan Natural and Cultural Protection Promotion Association, Wild Yak Watcher Association of Cuochi Village and members from Yunnan Golden Monkey Protection Team of Mt. Laojunshan ,Yulong County and farmers from Liqie village of Shitou township, Yulong County. For the alpine meadow and wetland landscape of Sanjiangyuan - Qinghai-Tibetan Plateau, telephone consultation was conducted by interview of academics who are working in this area and local NGOs and representatives of local community including Institute of Mountain Hazards and Environment of Chinese Academy of Sciences, Environmental Sciences College of Beijing Normal University, Shanshui Conservation Center, Sanjiangyuan Eco-environmental Protection Association of Qinghai, Lechi Village Tibetan Antelope Conservation Association, Gaduo Juewu Ecological Conservation Association, Nianbaoyuze Eco-environmental Protection Association, Voluntary Association of Geji Pastoralists Ecological Conservation Association of Source of Langcanjiang (Mekong River) and villager representatives. For the tropical coastal zone seascape of Beibu Gulf, telephone consultation was also conducted by interview of academics who are working in this area and local NGOs and representatives of local community including College of Resources Science & Technology, Beijing Normal University, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Mangrove Wetland Research Center of Xiamen University, Guangxi Mangrove Research Centre, FFI China, Hainan Province Ocean Environmental Protection Association, Beihai Civil Volunteers Association of Guangxi and villager representatives from Xikan village of Baisha Township, Beihai City, Guangxi. The country programme plans to organize local stakeholders' consultation meetings at each selected landscape/seascape at different stages –one before starting 'call for proposals', one after proposals approval and others during the projects implementation when it's needed.

For the detail of baseline assessment of the selected landscape/seascapes, please see Annex 1.

The alpine gorge landscape of Northwest of Yunnan-Hengduanshan Mountain has the richest cultural and biological diversity in China and also globally significant biodiversity hotspot. Within this area, the country programme will focus on community landscape/seascape conservation initiative by supporting the development, networking and recognition of ICCAs, the development of community eco-tourism and natural education, linking biodiversity friendly products with markets, sustainable management and use of natural resources, restoration of fragment landscape and reviving local culture and strengthening community self-governance. Since the area of arable land in this landscape is fragmented and limited, even sloping land is developed as farmland, which intensifies the water and soil erosion and loss of soil fertility. In this connection, climate-smart agro-ecology will be promoted and integrated with landscape conservation in this area. Soil conservation systems such as terracing and contour farming, mixtures of crop varieties, intercropping systems, agroforestry systems, agrosilvopastoral and livestock integration and non-tillage farming etc. will be promoted. The reduction of agrochemical inputs to this landscape will also contribute to 'local to global chemicals coalitions' initiative. Energy access co-benefits initiative will also be integrated into landscape conservation by supporting the utilization of renewable energy and energy-saving facilities to reduce the pressure to forest ecosystem caused by large amount of firewood consumption and also improved local people's living condition and health status.

The alpine meadow and wetland landscape of Sanjiangyuan - Qinghai-Tibetan Plateau area is the sources area of three important rivers: Yangtze River, Yellow River and Langcangjiang River (Mekong River) so that it's called 'Asia's Water Tower'. The water resources quantity generated from this area accounts for 49.2%, 25% and 15% of the total flow of Yellow River, Yangtze River and Langcangjiang River respectively. This area is densely covered by rivers, lakes, swamps, snow-mountains and glaciers. It has the highest, largest and concentrated wetland distribution in the world with total area of 73300km^2. This area also has large area of alpine meadow. The country programme will focus on community landscape/seascape conservation initiative in this area by supporting wetland conservation, returning grazing land to swamps, setting up closed season and prohibited areas for fishing, returning grazing land to grassland, returning arable land to forest or grassland, afforestation for suitable barren mountains, restoration of degraded grassland and development of diversified livelihood etc. to reduce pressure on alpine meadow and wetland landscape. Energy access co-benefits initiative will also be integrated into landscape conservation by supporting solar energy utilization since there is richest solar irradiation at this area.

The tropical coastal zone seascape of Beibu Gulf is the globally significant biodiversity hotspot and part of South China Sea. This area is one of the three big areas of mangroves distribution in China. There are some coral reef around Weizhou Island in this area. This area is also located in the middle of the East Asia-Australia migration birds' flyway, which is the global significant migration birds wintering place and stopover site. Coastal erosion, sedimentation, land-based pollution, red tide, the loss and deterioration of mangrove, seagrass bed, coral reef and coastal wetland and decline of biodiversity are the main challenges this area is facing. To address the above threatens, the country programme will support community seascape conservation initiative through promotion of sustainable fishing, development of mangrove integrated ecological aquaculture and other alternative livelihood, restoration and conservation of mangroves, seagrass bed, coral reefs and coastal wetland, strengthening of monitoring and evaluation on sewage draining sources and control of land-based pollution. This initiative will contribute to the implementation of the Strategic Action Programme for the South China Sea. Climate-smart agro-ecology initiative and local to global chemicals coalition initiative will be integrated into community seascape conservation within this coastal seascape to control rural non-point source pollution and promote waste management.

The country programme will conduct resources mobilization at landscape level by using SGP as a seed fund to leverage resources from local government, academic institutes, foundations, NGOs and private sectors whose work focus on these landscape/seascapes.

3.3. *Grant-maker+ strategies* (2 pages)[7]

3.3.1. CSO-government Dialogue Platform

Please describe your country program's plans to organize CSO-government dialogue platforms. Dialogues should help promote role of CSOs, uptake of good practices, influence policies and enhance communications (i.e. possible thematic examples may include local to global chemical coalitions; networks of agro-ecology farmer leaders and producer organizations; national federations of ICCAs, south-south development exchange solutions etc.).

First, the CSO-government dialogue platform will be built on the existing mechanism. For example, the regular SGP projects wrap-up meeting will also serves as a CSO-government dialogue platform which is attended by all NGO grantee partners of SGP in certain project cycle and NSC including members from line ministries. On one hand, it is a good opportunity for government agencies to understand what CSOs can do

[7] The OP6 Grant-maker+ strategies and related activities may either be outside of the selected landscape/seascapes, or promote partnership building, networking and policy development within the target areas.

and what they can achieve. On the other hand, CSOs can directly present their ideas, needs and challenges to the government agencies. This will improve the mutual understanding and trust between government and CSOs in the complexities inherent in working with CSOs in China.

Second, the CSO-government dialogue platform will be built through the landscape/seascape(s) approach. As implementing landscape approach needs negotiation among different stakeholders at landscape level including local government, CSOs and local communities, the country programme will facilitate to establish such dialogue platform for stakeholders for defining opportunities and constraints for conservation action within the landscape, negotiating framework for land and resource use decisions and setting up targets of conservation and sustainable development within the selected landscape/seascape(s).

3.3.2. Policy influence

Please describe how the SGP country programme will use experiences and lessons learnt from SGP to inform and influence policy as part of its role as 'Grant-makers+' in OP6 at the local, regional and national levels (i.e. identify key policy processes and relevant networks).

The country programme will encourage applicants to incorporate policy influence into their project design at the beginning, especially working with local government, local People's Congress representatives and Political Consultative Conference on specific environmental issues. Since it may be difficult to influence national level policy as China is such a big country, SGP's work on policy influence will focus on local level especially at landscape level since the landscape approach will be taken up in OP6. Within selected landscape/seascapes, the country programme will facilitate the dialogues between the local government and CSOs and local communities for policy influence. The country programme will collect lessons learned from demonstration projects and present to local government as policy recommendations. SGP will also support different CSO networks and federations to participate in policy consultation process.

3.3.3. Promoting social inclusion (mandatory)

Please describe the SGP country programme's plans and strategies to: (i) promote women's empowerment and gender equality (in particular for the selected OP6 landscape/seascape); (ii) empower indigenous people (in particular through the appropriate recognition of indigenous peoples and community conserved territories and areas, ICCAs, including through fellowships and other means to promote CSO champions);[8] and (iii) involve children and youth in country portfolio programming. [9]

[8] Through the CBD COP10 and 2020 Aichi targets, state parties agreed in 2010 to expand the global coverage of protected areas from 12% to 17% by 2020 (including through "*other effective area-based conservation measures*" such as ICCAs). Both the UNDP 2012-2020 Strategic Framework on Biodiversity and Ecosystems, as well as the GEF-6 Strategic Framework, further recognize the central role of ICCAs in reaching the Aichi targets and national sustainable development priorities. In this context, in 2014 the Federal Government of Germany provided additional co-financing of $16.3M to support a 'Global ICCA Support Initiative' to be delivered through the SGP in at least 20 countries (to be also articulated in the present OP6 CPS).

[9] In the case of the SIDS-CBA funded by the Government of Australia, an additional focus will be placed on the needs of peoples with disabilities as a sector especially vulnerable to disasters and climate change. As articulated under the UN Convention on the Rights of Peoples' with Disabilities (UNCRPD), all UN agencies are encouraged to develop projects and approaches to consider the needs of this target population.

According to UNDP Human Development Report 2014, China's Gender Inequality Index ranked No. 37 within 187 countries. Women's share of seats in parliament only accounts for 23.4%, which indicates that few women can participate in decision-making process in China. The ratio of female and male population with at least some secondary education is 58.7:71.9 and the labour force participation rate of female and male is 63.8:78.1, which indicates that women are still stand lower social status comparing with men in terms of education and employment. In the same report, China's Gender Development Index ranked No. 88 within 187 countries. The female human development index (HDI) is 0.696 while the male HDI is 0.740, which indicates that women's development is still inequality comparing with men's development in China. According to the census, the sex ratio of total population in China is remianing106, which is higher than the world average of 95-102. According to 'China Women Development Outline (2011-2020)', China is still facing problems and challenges regarding women's development. For example, gender discrimination in employment is still existing; there is still disparity between women and men in terms of resources occupation and income; women's participation in decision-making and management is still at low level; women's education level is still lower than that of men; women's health demand is to be fulfilled; social environment for women's development is to be improved; social security level for women is to be enhanced. There is an increasing diversity of interests demand by women at different social stratum. The unbalanced development of women between urban and rural is still unsolved. Within the selected landscape/seascapes, they are facing the same problems mentioned above.

The country programme will clearly indicates the priority principles of SGP China in its Guidelines of Project Proposals that project proposal should specially focus on the engagement and empower of women, indigenous people, children and youth and promoting gender equality and women's leadership, which will be incorporated into the criteria of project selection for NSC members. The country programme will continue to work with UN Women for awareness raising on gender mainstreaming at the beginning of project cycle to make sure that grantee partners take up gender-sensitive approach during project implementation. Since the country programme will test landscape/seascape approach in OP6, SGP China will facilitate establish women group's network within selected landscape/seascapes for their capacity development, mutual learning and participating in project design, implementation, monitoring and management.

For empowerment of indigenous people, since the concept of 'indigenous people' doesn't exist in China-all nationalities are considered indigenous in China, the country programme will focus on empowering ethnic group people, poor and vulnerable people at community. SGP China's work in OP5 has laid the foundation to empower these targeted group peoples by supporting community conserved areas in Yunnan, Guizhou, Gansu, Qinghai and Guangxi. Especially, SGP China is supporting one strategic project in Guangxi to promote the proper recognition of CCAs by the government of this autonomous region. Based on the previous work, in OP6, the country programme will facilitate to establish the CCAs network or federation in China to further promote the recognition of CCAs and empower the ethnic group and vulnerable group people. The country programme will also work with ICCA China working group and other partners to provide trainings and capability development opportunities to members of ethnic group and vulnerable group people.

For involvement of children and youth, based on the experiences in OP5, the country programme will continue to provide environmental education to children in schools and involve different university students as volunteers in projects implementation. Priorities will also be given to projects led by youth group. Meanwhile, the country programme will work with Youth Advisory Group of UNDP China to involve more youth into environmental protection activities. For example, the country programme will partner youth with environment NGOs if they want to work with NGOs or intern with NGOs or have joint event with environment NGOs; the country programme will partner with Youth Advisory Group to organize youth delegates for participating important UN convention meetings such as UNFCC COP and others.

3.3.4. Knowledge management plan

Please describe the SGP country programme's plans to capture, share, and disseminate the lessons learned and good practices identified through the country portfolio of SGP projects with civil society, government, and other relevant stakeholders (i.e. process for generating knowledge; type of knowledge products; knowledge fairs; peer to peer exchanges; use of demonstration sites) so as to generate greater impact, and foster replication and scaling up of community innovations. Please specify the contribution required from each SGP country programme towards the OP6 digital library and global South-South exchange.

The country programme will collect data and information through project proposal, project reports and field visits and conduct regular analysis of lessons learned and provide the transmission of experience from project to project. These collected information and lessons learned will be consolidated in forms of booklets, reports, reviews, photo stories and videos and shared with stakeholders through SGP China network and website. The NC will also make sure that SGP experiences, lessons learned and case studies from local communities are presented and publicized at different seminars, workshops, forums and events related to environmental or NGO issues. The SGP China inception meeting and wrap-up meeting also provide opportunities for NGOs' knowledge sharing and peer to peer exchanges. During the project implementation cycle, the country programme will also identify model projects and encourage other project staff who are working in the same thematic areas to visit the model projects. In OP6, such kind of learning and exchange visits will be organized within selected landscape/seascapes.

The country programme will also work with grantee partners to develop case studies on integrative approach of environmental protection, sustainable livelihood and community empowerment and step by step showcase of demonstrative technologies. These case studies and step by step showcase technologies will be grouped by thematic areas for example biodiversity friendly products development, seagrass bed restoration, agroforestry system, renewable energy, improvement of energy efficiency and so on so that communities who concern the same issues can easily find solutions of reference. This will also contribute to SGP global digital library and south-south exchange platform.

3.3.5. Communications Strategy

Please describe your strategy to communicate and engage with key stakeholders and CSO's in your country and selected landscape to promote participation, build relationships and foster partnerships; as well as to articulate the contribution of the SGP to the priorities of the national action plans described under Table 1, the GEF 2020 Vision and the UNDP Strategic Plan.

The country programme will continue to inform the results it has achieved through national and local media to enhance the influence of SGP China. The country programme will also use its own website, social media and network to disseminate country programme strategy, project experiences and lessons learned, project newsletter and project knowledge products to its stakeholders to increase the visibility of SGP China. At national level, the country programme will build partnerships with leading ministries for international conventions fulfilment such as UNCBD, UNFCCC, UNCCD, Stockholm Convention and Minamata Convention through its NSC network. At landscape/seascapes level, the country programme will facilitate to establish stakeholders consultation and cooperation mechanism in selected landscape/seascapes, which will involve local government agencies, NGOs, communities, academic institutes, media and others. This cross-sectors mechanism will play the main role in landscape/seascapes approach in OP6. The country programme will also identify foundations or other organizations that have plan to work or already worked in selected landscape/seascapes to explore the cooperation opportunities with them so that the resources can be integrated and mutual complemented.

4. Expected results framework

4.1. Please fill in the table below (Table 3) detailing the target OP6 global project components described in the GEF CEO Endorsement document. SGP country programmes are invited to establish the national-level CPS targets for the relevant integrated (multi-focal area) OP6 strategic initiatives (countries may select to work on priority initiatives).

Table 3. Consistency with SGP OP6 global programme components

OP6 project components	CPS targets	Activities	Indicators	Means of verification	Social and Environmental Safeguards
SGP OP6 Component 1: *Community Landscape and Seascape Conservation*: 1.1 SGP country programmes improve conservation and sustainable use, and management of important terrestrial and coastal/marine ecosystems through implementation of community based landscape/seascape approaches in approximately 50 countries	There are three priority landscape/seascapes identified by CPS: 1) Northwest of Yunnan-Hengduanshan Mountain which is the globally significant biodiversity hotspot and also one of the priority areas of biodiversity in NBSAP. 2) Qinghai-Tibetan Plateau-Sanjiangyuan (sources of three rivers) area which is the important water source area for Asia and also one of the priority areas of biodiversity in NBSAP. 3) Beibu Gulf coastal area which is the globally significant biodiversity hotspot and part of South China Sea. * * 3 target landscapes/seascapes including alpine canyon, plateau meadow and wetland, and tropical coastal areas for approx. 70% of OP6 grant-making resources * supported Strategic Action Programme for the South China Sea	*approx. 16 projects supported by STAR and 4 projects supported by CORE including but not limited: ICCAs development; community co-management models in different nature reserves; landscape/seascapes partnerships involving local governments, local communities and NGOs; sustainable use of biodiversity products and enhance local community's livelihood; establishment of ecologically friendly demonstration areas such as ecologically friendly provinces, cities, counties, towns and villages; conservation of grassland ecosystem through community-based approaches; and conservation and restoration of typical*	Target # of hectares Landscape/seascape baseline assessment indicators (TBD) See Annex 1 and 2	Individual project reporting by SGP country teams Baseline assessment comparison variables (use of conceptual models and partner data as appropriate) Annual Monitoring Report (AMR) Country Programme Strategy Review (NSC inputs)	*See Section 7 below in the OP6 CPS template*

		coastal and marine ecosystems.[10]			
SGP OP6 Component 2: *Climate Smart Innovative Agro-ecology:* 2.1 Agro-ecology practices incorporating measures to reduce CO2 emissions and enhancing resilience to climate change tried and tested in protected area buffer zones and forest corridors and disseminated widely in at least 30 priority countries	• Promote complex agricultural ecology system such as mulberry trees-fish ponds system, rice-fish-duck intergrowth system, livestock-biogas-fruit tree/vegetable system • Promote soil conservation systems such terracing and contour farming • Promote mixtures of crop varieties, intercropping systems, agroforestry systems, agrosilvopastoral and livestock integration • Promote afforestation and reforestation and strengthen the capacity of carbon sinks while take account of the impact of plantation on biodiversity • Promote test-based application of fertilizers and to reduce the	*Approx. 4 projects supported by CORE*	Target # of hectares Landscape/seascape baseline assessment indicators (TBD) See Annex 1 and 2	Individual project reporting by SGP country teams Socio-ecological resilience indicators for production landscapes (SEPLs) Annual Monitoring Report (AMR) Country Programme Strategy Review (NSC inputs)	*See Section 7 below in the OP6 CPS template*

[10] The estimated number of OP6 projects should distinguish between the utilization of OP6 core grants (which can apply across GEF focal areas) and non-core GEF STAR resources (which need to be directly linked to the relevant GEF focal areas). In accordance with the GEF Steering Committee decision (March 2010), up to 20% of non-core GEF resources mobilized may be used for secondary focal areas.

	emission of nitrous oxide in country side • Popularize protective farming featuring mainly crop stalk coverage and non-tillage to reduce carbon emission.				
SGP OP6 Component 3: *Low Carbon Energy Access Co-benefits*: 3.1 Low carbon community energy access solutions successfully deployed in 50 countries with alignment and integration of these approaches within larger frameworks such as SE4ALL initiated in at least 12 countries	At least one innovative typology of locally adapted solutions demonstrated and documented At least 1000 households achieving energy access Co-benefits such as resilience, ecosystem effects, income, health and others rigorously estimated[11]	*Approx. 13 projects supported by STAR*	Number of typologies of community-oriented, locally adapted energy access solutions with successful demonstrations for scaling up and replication Number of households achieving energy access with locally adapted community solutions, with co-benefits	AMR, country reports AMR, global database, country reports Special country studies[13] Country Programme Strategy Review (NSC inputs)	*See Section 7 below in the OP6 CPS template*

[11] Only applies to lead countries in this strategic initiative
[13] Only applies to lead countries in this strategic initiative

			estimated and valued[12]		
SGP OP6 Component 4: *Local to Global Chemical Management Coalitions:* 4.1 Innovative community-based tools and approaches demonstrated, deployed and transferred, with support from newly organized or existing coalitions in at least 20 countries for managing harmful chemicals and waste in a sound manner	• Promote organic farming and agro-ecology practices to eliminate the use of pesticide and chemical fertilizer (this can be integrated into community landscape-seascapes conservation initiative) • Promote waste reduction and sorting • Demonstrate innovative technology or method to transform waste into products • Educate and raise awareness of informal sector of e-waste management and help them to transform into formal sector • Establish network of CSOs on chemical management and build partnership with IPEN and other international organizations	*Approx. 4 project supported by CORE*	Target # beneficiaries (gender, youth, indigenous peoples, and disability disaggregated)	Individual project reporting by SGP country teams Strategic partnership with IPEN country partners Annual Monitoring Report (AMR) Country Programme Strategy Review	*See Section 7 below in the OP6 CPS template*
SGP OP6 Component 5:	National level CSO-government dialogue platform will be built on the existing annual projects	*Global level OP6 priority*	Target # "CSO-Government	Individual project reporting by SGP country teams	*See Section 7 below in the*

[12] Only applies to lead countries in this strategic initiative

CSO-Government Policy and Planning Dialogue Platforms (Grant-makers+): 5.1 SGP supports establishment of "CSO-Government Policy and Planning Dialogue Platforms", leveraging existing and potential partnerships, in at least 50 countries	wrap-up meeting to strengthen the mutual understanding and trust between government and CSOs. Landscape/seascapes level CSO-government dialogue will focus on negotiating framework for land and resource use decisions and setting up targets of conservation and sustainable development within the selected landscape/seascape(s).	*Cross-cutting priority for the CPS at the national level*	Policy and Planning Dialogue Platforms* initiated * CPS to specify thematic and/or geographic focus for platforms CSO networks strengthened if one of 25 lead countries	SGP Global Database Annual Monitoring Report (AMR) Country Programme Strategy Review	*OP6 CPS template*
<u>SGP OP6 Component 6</u>: *Promoting Social Inclusion (Grant-makers+):* 6.1 Gender mainstreaming considerations applied by all SGP country programmes; Gender training utilized by SGP staff, grantees, NSC members, partners 6.2 IP Fellowship programme awards at least 12 fellowships to build capacity of IPs; implementation of projects by IPs is supported in relevant countries	• Work with UN Women for awareness raising on gender mainstreaming at the beginning of project cycle to make sure that grantee partners take up gender-sensitive approach during project implementation • Facilitate to establish women group's network within selected landscape/seascapes for their capacity development, mutual learning and participating in project	*Global level OP6 priority* *Cross-cutting priority for the CPS at the national level*	Target # beneficiaries (gender, youth, indigenous peoples, and disability disaggregated) Target # indigenous fellows (individuals)	Individual project reporting by SGP country teams SGP Global Database Annual Monitoring Report (AMR) Country Programme Strategy Review	*See Section 7 below in the OP6 CPS template*

6.3 Involvement of youth and disabled is further supported in SGP projects and guidelines and best practices are widely shared with countries	design, implementation, monitoring and management. • Facilitate to establish the ICCAs network or federation to promote the recognition of ICCAs and empower the ethnic group and vulnerable group people. • Provide environmental education to children in schools and involve different university students as volunteers in projects implementation; give priorities to projects led by youth group.				
<u>SGP OP6 Component 7</u>: *Global Reach for Citizen Practice-Based Knowledge program (Grant-makers+):* 7.1 Digital library of community innovations is established and provides access to information to communities in at least 50 countries 7.2 South-South Community Innovation Exchange Platform promotes south-south exchanges on global	SGP China supported projects on clean energy stoves and utilization of bamboo resources are already drawn attention by other developing countries and transferred to these countries. The country programme will work with grantee partners to develop case studies and contribute to global digital library and SSC Innovation Exchange platform.	*Global level OP6 priority* *SGP country teams (NC and PA) global database inputs*	Target # of country innovations to be shared and disseminated at the global level* * Examples may be drawn from OP6 period, as well as earlier SGP Operational Phases (including	SGP Global Database Annual Monitoring Report (AMR) Country Programme Strategy Review	*See Section 7 below in the OP6 CPS template*

environmental issues in at least 20 countries			Upgrading country programmes)		

5. Monitoring & Evaluation plan (1 page)

5.1. Below please describe the country level M&E plan to monitor the implementation of the CPS, with particular reference to the targets and indicators set in Table 3 within your selected landscape/ seascape(s). Please describe the use of particular SGP frameworks for M&E such as COMDEKS, COMPACT, CBA, and CBR+ (already piloted within the SGP and ready for replication).

Based on the consultation with different stakeholders, the CPS development team together with NC, NSC members and representatives of stakeholders has identified three target landscape/seascapes as priority areas for SGP China. The selection of the target landscape/seascapes integrated and weighted different aspects including the rate of climate change, topography, biodiversity, and distribution of ethnic diversity, distribution of poverty counties, distribution of eco-fragile areas, distribution of environment NGOs, and the distribution of priority areas in NBSAP. The CPS provided the baseline assessment of the three target landscapes/seascapes based on information collected from existing document literature from government and academic institutes and interviews with local stakeholders. The country programme will organize stakeholder meetings for each selected landscape/seascape at the beginning of project cycle. During this meeting, the country programme will guide all stakeholders within selected landscape/seascape to use the indicators of Resilience in Socio-ecological Production Landscapes and Seascapes (SEPLS) to assess the situation in project sites. M&E at the landscape level will be carried out twice – once in the midway of the projects cycle and another time at the end of the project cycle, which will be involved by NSC, UNDP CO, NC and local stakeholders. The knowledge management and annual country programme monitoring report will also provide information/evidence on the change and the status of the landscape.

5.2 Please indicate how M&E of individual SGP grantee partners (i.e. national NGOs, CBOs, or intermediary organizations) will be strengthened and adaptive management promoted. Details on the frequency of monitoring visits and plans for project/portfolio evaluations should be provided. Where possible partnerships with other grant-makers, foundations and academic institutions should be explored to help enhance participatory M&E and adaptive management.

Each approved GEF-SGP project is required a monitoring and evaluation plan with appropriate indicators. For each project there shall be an M&E record which will be used to collect and record information that will be analysed to produce periodic progress reports and final reports to be submitted to the GEF-SGP Country Programme by the grantees. The grantees are requested to submitted M&E record every 6 months. The periodic progress reports and financial report are requested based on the agreed disbursement schedule. The NC and NSC member will pay project site visit at least once during project cycle. Each project will be concluded with: a final evaluation record, a final financial report and a final report with an assessment of lessons learned. Participatory M&E will be encouraged at community level regularly to make sure adaptive management is conducted. Within selected landscape/seascapes, peer-to-peer exchange visits will be organized as another way of participatory M&E.

5.3 Please describe how local stakeholders, community members and/or indigenous peoples' will participate in setting project objectives and outputs; how they will participate in monitoring with what kind of method and periodicity; and how progress will be documented and reported.

Each project proposal is required to provide the baseline information of project site. A stakeholder meeting is suggested to be hold before project starting with the involvement of locals to identify the existing

problems, proposed solutions, project objectives and outputs, which will contribute to the overall objectives of country programme. Based on the consultation process, the participatory monitoring and evaluation will be conducted by grantee partners together with local stakeholders especially the project beneficiaries during project cycle. It is suggested that every 6 months, before the submission of M&E record, the grantee organizes the M&E activity through community assembly, door-to-door interviews, participants marking, project implementation review and other methods to discuss and decide how this project brought about changes and whether it improved their ecological environment and their life. The results generated by these activities will be incorporated into the project M&E record.

5.4 Please describe the strategy for how the results of SGP individual projects will be aggregated at the country programme portfolio level. The following table provides the key country programme M&E tools and templates.

The individual project proposals are requested to provide relevant objectives and indicators line with the country programme strategy. The project will submit periodic progress report and final report at the end of project cycle. Grantees are also requested to produce case studies and stories of the project activities, best practices and lessons learned on a regular basis. All these reports and case studies will be the basic sources of information for country programme to develop the annual country report, which will capture the results of SGP at country programme level.

Table 4. M&E Plan at the Country Programme Level

M&E Activity	Responsible Parties	Timeframe/Scope
Country Programme Annual Strategy Review	NSC, NC, CPMT	Reviews will be conducted on annual basis[14] to ensure CPS is on track in achieving its outcomes and targets, and to take decisions on any revisions or adaptive management needs
NSC meetings	NSC, NC, UNDP CO	Minimum twice per year, with one dedicated to M&E and adaptive management at the end of each grant year in June
Financial reporting	NC/PA, UNOPS	Quarterly
Annual Country Report[15] (ACR) to review portfolio progress and results of completed projects	NC presenting to NSC	Once per year in June
Annual Monitoring Report – country survey[16] based on ACR	NC, survey data provided to CPMT	Once per year in July

[14] The CPS is a living document, and should be reviewed and updated as deemed necessary by the NSC on a periodic basis as part of the annual strategy review.
[15] The country programme should be reviewed in consultation with the NSC members, national Rio Convention focal points, and the associated reporting requirements. The Annual Country Report should be presented at a dedicated NSC meeting in June each year to review progress and results and take decisions on key adaptive measures and targets for the following year.
[16] The AMR Survey will essentially draw upon information presented by the country in the Annual Country Report (ACR) with few additional questions. It will enable aggregation of country inputs by CPMT for global reporting.

Strategic Country Portfolio Review	NSC, NC	At the end of OP6

6. Resource mobilization plan (1 page)

6.1. Please outline possibilities to develop strategic partnerships (identifying their objectives and possible synergies with SGP) with *inter alia* the following potential partners: (i) national government agencies and local authorities; (ii) multilateral agencies or financial institutions (such as the World Bank, regional development banks, and/or other international organizations); (iii) bilateral agencies; (iv) non-governmental organizations and foundations; and (v) private sector.

In OP6, the country programme will further strengthen its partnerships with national government agencies who is leading the fulfilment of international conventions through the NSC members from line ministries such as Ministry of Finance, Ministry of Environmental Protection and State Forestry Administration to better support SGP in China. Since the landscape/seascape approach will be implemented in OP6, the country programme will develop strategic partnership with local government at landscape/seascape level. The country programme will also explore opportunities to work with other foundations, international organizations and academic institutes within the selected landscape/seascapes to generate synergic effect.

Within selected landscape/seascapes, the country programme will explore the synergies with UNDP-CO programming and government programming. For example, in the alpine meadow and wetland landscape of Sanjiangyuan - Qinghai-Tibetan Plateau, the UNDP GEF full-sized project 'Strengthening the effectiveness of the protected area system in Qinghai Province, China to conserve globally important biodiversity' implemented by the Department of Forestry, Qinghai Province Government is on-going, the 2nd phase of Sanjiangyuan ecological conservation and construction programme (2013-2020) is under implementation by the government of China with CNY16.06 billion investment in this area, which SGP could explore the cooperation and co-financing with the local government. In Beibu Gulf area, UNDP CO is working on a pipeline project with State Oceanic Administration on 'Conservation of Critical Chinese White Dolphin Habitat', which SGP could work with for community participation in marine species and their habitat protection. Although there is no on-going GEF projects in the alpine gorge landscape of Northwest of Yunnan-Hengduanshan Mountain, the local government for the first time has enacted Yunnan Province Ecological Conservation and Construction Plan (2014-2020), which is targeted natural ecological resources conservation. This will also help SGP to mobilize resources from the local government to achieve common goals.

6.2. Please describe the OP6 resource mobilization plan to enhance the sustainability of the SGP country programme grants and grant-makers+ role with reference to: (i) ways to enhance or increase cash and in-kind co-financing at project level; (ii) diversify funding sources to achieve greater impact (i.e. non-GEF resources that help address post-2015 UN Sustainable Development Goals, SDGs); (iii) an approach to recover costs to co-finance a share of the SGP country programme non-grant costs (i.e. UNDP TRAC, national host institutions, government contributions, bilateral donors); and (iv) opportunities for SGP to serve as a delivery mechanism.

All grantees of GEF SGP are considered partners who can leverage resources from local government agencies, academic and research institutes, private sectors and communities to participate in project implementation because these stakeholders have the same goal with GEF SGP. In GEF-6, SGP China will continue to help grantees to mobilize more resources from wide channels. In addition, some international organizations and foundations are working in the same field with SGP. All of them offer great opportunities for complementarily and cooperation with the local NGOs on project basis.

At country programme level, SGP China will explore strengthening the cooperation with local government at landscape/seascapes level as well as commonweal foundations such as Tencent Charity Foundation, Alibaba Commonweal Foundation, China Environmental Protection Foundation, and SEE foundation and so on. The UNDP CO has established partnership and resource mobilization team, SGP China will work with UNDP CO to explore the potential donors of private sectors.

7. Risk Management Plan (1 page)

7.1 Please identify any key risks that you anticipate in the implementation of the CPS during OP6, with reference to the following aspects: (i) social and environmental risks (as reflected in UNDP's Social and Environmental Safeguards); [17] (ii) climate risks; (iii) other possible risks. For any identified risks, please complete the table below with an estimation of the degree and probability of risk, as well as the relevant risk mitigation measures.

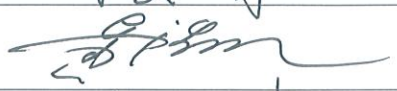
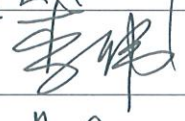
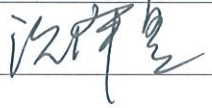
Table 5. Description of risks identified in OP6

Describe identified risk	Degree of risk (low, medium, high)	Probability of risk (low, medium, high)	Risk mitigation measure foreseen
Women participation barrier due to local custom in ethnic minority and remote areas	medium	High	The design of project activity will involve women; Needs consultation with women should be done separately; Build self-confidence for women by providing trainings and livelihood supporting activities
Lacking of dialogue and cooperation between local government and local NGOs on landscape/seascape approach	medium	High	Organize stakeholders meeting at the beginning of project cycle; Support to establish consultation committee at landscape level involving local government, NGOs , community and others
Climate related natural disasters such as drought, flood, pest and disease damage, coastal erosion etc. at project sites	High	High	Provide trainings on climate change and identify possible natural disaster and request each project to provide disaster prevention plan

[17] http://www.undp.org/content/dam/undp/library/corporate/Social-and-Environmental-Policies-and-Procedures/UNDPs-Social-and-Environmental-Standards-ENGLISH.pdf

7.2 Please indicate how these risks will be tracked. It is recommended that risks are tracked during the implementation of the OP6 CPS and review during the CPS Annual review. At that time the degree of risk, or probability of risk may be adjusted. Identified risks may also be removed and new risks added if necessary with appropriate mitigation measures identified.

The above mentioned risks will be tracked during the project cycle through project baseline information analysis, project M&E record and project progress report, site visit and project daily management. Specific actions to address these risks will be consulted with NC, NSC members and UNDP CO. The risk degree and probability will be updated accordingly.

NSC members involved in OP6 CPS development, review and endorsement	Signatures
Carsten Germer, Assistant Country Director of UNDP China	
Chen Qing, Director of South-North Institute for Sustainable Development (SNISD)	
Huang Haoming, Vice Chairman & Executive Director of China Association for NGO Cooperation (CANGO)	
Jia Xijin, Deputy Director of NGO Research Center (NGORC), Tsinghua University	
Li Wei, Secretary-General of China Environmental Protection Foundation(CEPF)	
Ran Dongya, Division Chief of State Forestry Administration(SFA)	
Shen Zehao, Associate Professor of Peking University	

Annex 1: OP6 landscape/seascape baseline assessment

I Targets of assessment and criteria of selection

1) the alpine gorge landscape of Northwest of Yunnan-Hengduanshan Mountain
2) the alpine meadow and wetland landscape of Sanjiangyuan (sources area of three important rivers)
3) the tropical coastal zone seascape of Beibu Gulf

The selection of the above mentioned three typical landscape/seascapes is based on eight factors including the rate of climate change, topography, biodiversity, ethnic diversity and demography, the economic development of local communities, the eco-fragility of landscape/seascapes, the status quo of natural conservation and the distribution of environment NGOs. Through data superposition and comprehensive evaluation, 10 candidate landscape/seascpaes have been identified. Then the results come from an integrated assessment according to SGP stakeholders' consultative meetings (including NSC), the existing work SGP has done and other feasible factors.

II Purpose and contents of assessment

The purpose of this assessment is to conduct pre-study on typical landscape/seascapes through applying landscape ecology and geographical methodology pertained to the SGP OP6 country programme strategy. Based on the characters of these landscape/seascapes, the baseline assessment includes the aspects as below:

1. geographical location (longtitude and latitude, altitude, natural geographic location and boundary, administrative areas)
2. natural environment (climate, topography, soil, hydrology and water resources, vegetation, fauna and flora, environmental pollution and natural disasters)
3. demography (human resources, social-economy, cultural characters)
4. landscape/seascapes description (structure and dynamics, land use, main threats)
5. vision of the landscape management (vision and goals, anticipated results and indicators, potential projects to be supported)
6. integration (the synergic elements of landscape/seascapes selection, ecosystem conservation and natural resources utilization, the connection and interaction of main stakeholders)

III Assessment methodology

- field investigation (vegetation, biodiversity)
- data collection (existing document literature from government and academic institutes and local stakeholders)
- interview at the site (villagers both Han and ethnic minority people, village chief, local enterprises and officers of townships and counties)
- questionnaire

I. Baseline Information Assessment Report on Typical Landscapes of Hengduanshan Mountain Area in Northwest Yunnan Province

1. Landscape Name: Alpine Canyons in Three Parallel Rivers area

2. Geographical location of this landscape

The Three Parallel Rivers area refers to the peculiar landscape where three rivers, Nujiang from Tibetan Plateau, Lancangjiang (Upstream of Mekong River) and Jinshajiang (Upstream of Yangtze River) flow in parallel without any confluence for over 170 km in northwest Yunnan, crossing mountainous areas such as Dandanglikashan , Gaoligongshan , Nushan and Yunling.

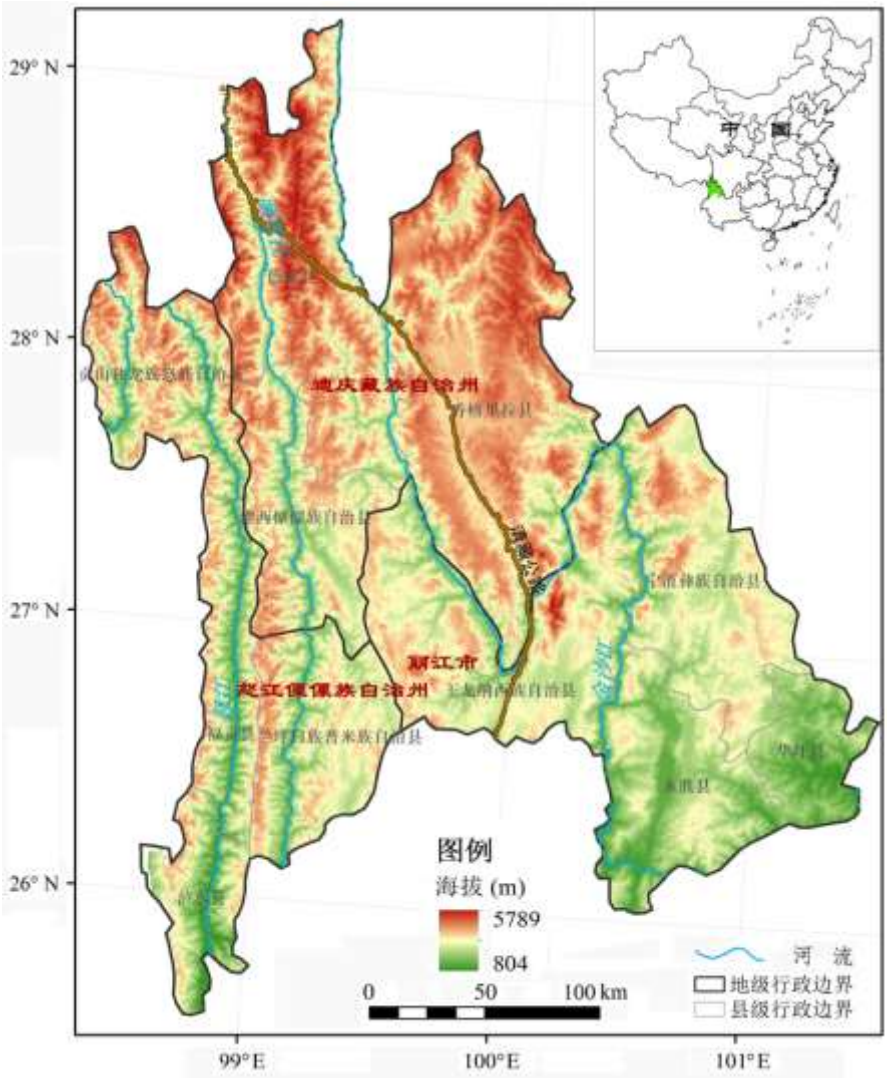


Figure 1: The location of the three parallel rivers area

Three Parallel Rivers area is located at longitude 98 °00'-100 °30 ', latitude 25 °30'-29 °00', which is a southern extension of the Rift Valley of Hengduan Mountains from Qinghai-Tibet Plateau. From north to south, the area starts from the junction of Tibet and Yunnan and reaches Liuku, Lanping County, the town of Shigu and Daju in northern Lijiang; from East to West, it

neighbours Sichuan and Myanmar. As the southern extension of the Qinghai-Tibet Plateau, it is also the transition zone of Qinghai-Tibet Plateau and the Yunnan-Guizhou Plateau. The area includes three administrative areas including Nujiang Lisu Autonomous Prefecture, Diqing Tibetan Autonomous Prefecture, and sixty-six townships and eight counties under Lijiang City. Its north-south linear distance is 400 km; the largest distance between its east-west boundaries is about 250 km, with a land area of about 34,307km^2 (figure 1).

3. Natural Environment of the Project Area

3.1 Climate

The area's climate is affected by the intersection of Southwest Monsoon from Indian , Southeast Monsoon from Pacific Ocean, and the South branch jet stream of Westerlies. Consequently its temperature drops from South to North, and precipitation rate declines from West to East. Meanwhile, there are significant climate differences within the area owing to the south-north trend of topography and the great difference of elevation, where it is dry and hot at the hill foot but cold and wet on the top.

Going downwards from valleys at around 2,500 m altitude, climate pattern varies from moist (Nujiang), semi-moist (Lancangjiang) to semi-arid and arid (Jinshajiang River) in Subtropic zone. The annual average temperature of the area is 11.3 ~ 15.5 ℃, the highest monthly average temperature is 19.9 ℃, the lowest monthly average temperature is 3.9 ℃, accumulated temperature of ≥10 ℃ is 3,740 ~ 5,400 ℃, frost-free period is around 50 to 160 days, annual precipitation falls into the range of 300 ~ 1,200 mm.

Places between 2,500 and 3,200m altitude are regarded as Temperate zone, with an average annual temperature of 7.5 ~ 10.5 ℃, the highest monthly average temperature is 15.7 ℃, the lowest monthly average temperature is 1.4 ℃,accumulated temperature of ≥10 ℃ is 2254 ℃, frost-free period is around 110 to 220 days, annual precipitation falls into the range of 900 ~ 1,600 mm.

Places between 3,200 and 4,500m altitude are regarded as Subalpine zone, the annual average temperature is 1.5 ~ 6.5 ℃, the highest monthly temperature is 10.7 ℃, the lowest monthly temperature is -4.2 ℃, annual precipitation is above 1000 mm. This zone is lack of arable land and households.

Places at 4500 m altitude or above are regarded as Alpine zone with periglacial climate.

3.2 Topographical Features

"Three Parallel Rivers" area contains the richest collection of topographical features in the world. 40 million years ago, there was a major collision between the Indian subcontinent and Eurasian continental plate that triggered sharp squeezes, uplifts, cuttings to the Hengduan Mountains, and finally lifted up both Qinghai-Tibet Plateau and the Hengduan Mountains. This led to the creation of the famous "Three Parallel Rivers" lying between four mountains, from east and west, Mt. Jade Dragon Snow Mountain, Jinsha River, Mt. Yunling, Lancang River, Mt. Nushan (Meili Snow

Mountain, Bi Luo Snow Mountain), Nujiang River and Mt. Gaoligongshan pass through from north to south. Together they make up the natural wonder of parallel rivers flowing over 170 km.

In general, the height of the area declines from northwest to southeast, particularly in the canyons. Jinsha, Lancang and Nujiang rivers are steep on both sides, presenting a typical "V" shape canyon. The linear distance between the highest point of peak Kage Bo (6740m) to the Xidang chain bridge across Lancang River (1980m) is merely 12km, but there is already a difference of 4760m altitude, in other words, there is an increase of 400m altitude in every km linear distance. In the whole area of 34,307km^2, 61.2 % of its lands are steeper than 25 degrees, 22.1% are steeper than 35 degrees.

There are numerous mountains in the Three Parallel Rivers area. 118 of them are snow-capped mountains that over 5000 m above the sea level. Among them, Shangri-La is dense with high mountains, as well as plateau planation surfaces. For example, the Shangri-La Grade I Qianhushan planation surface, which is located at 3800m ~ 4000m above sea level, 50 km long from north to south, 3-5 km wide from east to west, nearby there are also Grade II Xiaozhongdian and Dazhongdian planation surface.

3.3 Type of Soil

There are six types of soil in the area that are distributed in accordance with altitude.

1) In warm arid valleys located below 2,800 m altitude, soil types are mostly Cinnamon soil and dry red soil with shrub sparse grasslands.
2) Mountain Brown Soil can be found at 2,800-3,400m altitude, with coniferous and broad-leaf mixed forests and rhododendron shrubs. The dominant species are Yunnan pine, alpine abies and Pinus armandii etc.
3) Mountain Dark Brown Soil can be found at 3,200-4,000m altitude, with mostly spruce, fir and Quercus Aquifolioides forests.
4) Mountain Coniferous Brown Soil can be found at 3,800-4,200m altitude, with mostly fir forests and larch-moss forests, and various kinds of rhododendron shrub. The weather is cold and wet.
5) Subalpine Meadow Soil can be found at 4,000-4,600 m altitude, with meadows of grasses and low shrubs, which makes it a natural alpine pasture.
6) Alpine Frigid Desert Soil can be found at 4,600m altitude or above, it is relatively the youngest in terms of soil foundation and have initial soil fertility, with sparse Alpine Periglacial Scree Shrubs, including gentians, Snow lotuses, lichens, mosses etc.

3.4 Types and Distribution of Vegetation

The area has a wide range of vegetation types that are distributed in different levels of altitude. It reflects the complexity and regional characteristic of South-eastern Qinghai-Tibet Plateau and the uniqueness, complication and historical evolution of Yunnan vegetation. Alpine vegetation in High altitude zones are similar to those in Qinghai-Tibet Plateau while those in low altitude valleys preserve characteristics of tropical and subtropical zone. The main natural vegetation types are as follows:

1) Forest vegetation

(1) Warm coniferous Forest - Yunnan Pine Forests (2,500-2,800m altitude): Associated with Castanopsis delavayi Franch, Alnus Nepalensis, Cyclobalanopsis glaucoides etc. Soil is dry with limited fertility. Layer of shrubs often contains Rhododendron decorum Fr, Rhododendron delavayi Franch, Vaccinium Bracteatum Thunb. , Ternstroemia gymnanthera, Myrica Nana Cheval etc. Herbaceous layer often contains Arundinella setosa Trin, Delavay Eremopogon, Heteropogon Contortus, fern, Ainsliaea, Potentilla fulgens Wall, Rabdosia etc.

(2) Northern subtropical needle-broad leaf mixed Forest- Yunnan pine, Quercus semecarpifolia or Yunnan pine and Cyclobalanopsis glauca and Pinus armandii Franch (2,800- 3,300 m altitude): Associated with durisilvaes such as Quercus pannosa, Quercus pseudosemecarpifolia A. Camus and Quercus senescens, and small amount of acer, populus, spruce, Tsuga Chinensis etc. Layer of Shrub often contains Coriarias, various kind of azalea, water mahogaViburnum cylindricum, Angelica dahurica, Campylotropis, Hypericum monogynum L., Vaccinia bracteatum Thunb. and so on. Herbaceous layer is less flourishing, containing various kinds of Anaphalis sinica Hance such as Pedicularis, Calamagrostis, Aconitum, and Delphinium.

(3) Semi-humid Evergreen Broadleaf Forest – Cyclobalanopsis glauca (2,400-2,600m altitude): Narrowly distributed on the strip shape area along valleys, with sufficient supply of water. There is deep soil layer, up to 25m, in steep slopes, the second layer of arbor contains Tetracentraceae, Lithocarpus variolosus (Fr.) Chun, Lithocarpus dealbatus, Magnolia campbellii, Taxus fuana and Machilus chekiangensis etc.. There are Pterocarya delavayi and Alnus nepalensis on streamside. Shrub layer often contains various azaleas, Cornus macrophylla wall and Common Eurya.

(4) Mid-Level Moist Evergreen broadleaf forest –Cyclobalanopsis,Lithocarpus mairei (Schottky) Rehd or Quercus aquifolioides Forest: Mainly distributed on valley sides at 2,600m altitude or above due to its sufficient supply. It often contains pinales such as Pinus armandii Franch, Tsuga dumosa (D.Don) Eichler and Taxus wallichiana Zucc; So as camellias such as Syringa yunnanensis Franch , Acomastylis elata, maple and Prunus padus L.. It is an advantageous environment to Rhododendron rubiginosum and Fargesia spathacea Franch in the scrub layer ; Cecropis daurica, alphine Konjac, Sambucus chinensis Lindl.,Dryopteris, Elatostema involucratum , Primula malacoidesin herbaceous layer. There are numerous kinds of climbers in the forest as well.

(5) Deciduous Forest –maple, Betula albosinensis, Fargesia spathacea Franch Forest: distributed in evergreen broadleaf forests or secondary forests after the exhaustion of Spruce and Abies at the altitude level of 2,500-3,500m. Mid-matured forest dominated by Populus szechuanica, Salix wallichiana Anders., Betula albosinensis can be found at lower elevations , associated with shrubs of Rhododendron, Vaccinium bracteatum,Ternstroemia gymnanthera, Myrica nana Cheval, Rosa multiflora; Mixed with Betula platyphylla Suk., Populus rotundifolia griff, Quercus spinosa at higher elevations. There are a variety of maples, Prunus padus L., and cherries in narrow shaped forest areas. Some valleys have bunches of flocks of Pterocarya delavayi.

(6) Cold mountain Sclerophyllous evergreen broadleaf forest - Quercus pannosa Hand.-Mazz, Sorbus rufopilosa Forest: Distributed at 3,100-3,700 m altitude away from human disturbance. In the forest with single dominant species, up to 20 m tall, the coverage of arbors can be 60-70%,

associated with Sorbus rufopilosa, Picea likiangensis, Abies ernestii Rehd., Acer forrestii Diels , gamblea and Larix potaninii var.macrocarpa; sparse shrub layer, with Lonicera japonica Thunb. , Ribesiaceae, Fargesia spathacea Franch and Spiraea salicifolia L. and Neillia serratisepala; Pedicularis, Cyperaceae in herbaceous layer, sedges and the like. Trees there often bear Tillandsia usneoides

(7) Temperate Coniferous Forest — Tsuga dumosa, Fargesia spathacea Franch: Distributed at the attitude level of 2,500-2,900m and neighbours with Spruces and Abies Forests, Mixed Forest of Broadleaf Coniferous Forests. Associated with *Pinus armandii* Franch., Taxus yunnanensis Cheng et L. K. Fu , maple Quercus semecarpifolia which form the 20m tall tree zone. There are Fargesia spathacea Franch, Viburnum betulifolium, Lonicera japonica Thunb., Philadelphus incanus, Dipelta and Rhododendron in the 3-4m tall shrub layer that covers around 60% of the area. No developed herbaceous layer founded except some ferns, Ainsliaea, Ainsliaea, Viola, Ophiopogon bodinieri and Thalictrum aquilegifolium.

(8) Cold coniferous forests - Abies, spruce - rhododendron forest: The most far-reaching kind of forest in the area, located at a range of 3,200-4,300 m altitude. Abies and Spruces are mixed in 3,200-3,800 m, and there are pure forest of abies at locations above 3,800m. Rhododendron beesianum, Uvaria macrophylla, Rhododendron traillianum, Sorbus rufopilosa, Rhododendron alutaceum Balf. f. et W. W. Smith grow in the forest understory. 20cm tall herbaceous layer is sparse and scattered among the thick moss layer, which occupies around 15% of the forest. Primula sonchifolia, Ophiopogon bodinieri, Carex recurvisaccus T. Koyama., Cecropis daurica., Oxalis corymbosa, Anemone cathayensis, Corydalis, Athyriaceae can be found on the ground. Long stem Usnea coverage is up to 80%, with Aconitum Delphinium, Entire Meconopsis, Fern, Ligularia, Anemone cathayensis.

(9) Cold rhododendron coppice: distributed at 4,000-4,500m altitude with often exceeds 10,000 acres or more. There are Hemiphragma heterophyllum Wall, Cassiope selaginoides, Androsace, Cyperusin the sparse herbaceous layer.

2) Shrubbery

(10) Hot Arid Valley Shrubbery: mainly constituted by shrubs of Bauhinia brachycarpa, Pistacia weinmannifolia,Salix myrtillacea, Phyllanthus emblica, Terminalia franchetii Gagnep., Sophora davidii (Franch.) , Cactus and Succulent and alien single dominant shrubs such as Ageratina adenophora and Chromolaena odorata. This kind of Shrubbery is common on roadsides of arid valleys, borders of forest, and gutter areas at 700 ~ 2500 m altitude.

(11) Temperate shrubbery: mainly constituted by shrubs of Pieris japonica- Viburnum dilatatum and Prinsepia utilis. They are distributed at 2500-2800 m altitude on cut-over lands, roadsides and gutter areas.

(12) Mountain temperate shrubbery - mainly constituted by shrubs of Quercus Sclerophylls such as shrubs of Quercus pannosa and Quercus aquifolioides. They are distributed at 2700-3800 m altitude, as a result of man-made cutting and grazing.

(13) Alpine shrubbery – mainly constituted by shrubs of Rhododendron at 3200-4500m altitude, including Rhododendron fastigiatum Franch., Rhododendron siderophyllum Franch.,Rhododendron traillianum,Rhododendron parvifolium Adams,Rhododendron wardii W. W. Smith. Apart from that, shrubs of Spiraea Salicifolia, Lonicera semenovii regel and Potentilla fruticosa can be found there too.

3) Savannah

(14) Hot Arid Savannah: Mainly constituted by under-brushes of Pinus yunnanensis-Heteropogon contortus and Bombax ceiba- Capillipedium assimile (Steud) A.Camus at 700-1200m altitude in sites around Liuku of Nujiang River, upstream of Lancang River and the bottom of the arid valleys of Jinsha River.

4) Alpine meadow

(15) Cold Meadows: meadows between forests formed as a result of long practice of grazing and the complete deforestation to spruces and abies. They are mainly constituted by fescue meadows (3,500- 3,800m altitude) and Calamagrostis arundinacea, Arundinella anomala meadows (3,200-4,000m altitude).

(16) Weedy meadows: 40-50cm tall stably structured meadows located in semi-swampy areas at 4,000m altitude. The meadows are dominated by Kobresia cuneate with occasional growth of rheum acuminatum, and a small number of alpine vegetation such as Delphinium, Clinopodium, Veronica, Poa.

(17) Marsh Meadows: 30cm tall Meadows at 2800-4200m altitude embedded between Dark Coniferous forests and Rhododendron Shrubs. They are dominated by Juncus bufonius, Eleocharis congesta subsp. Japonica, Sanguisorba filiformis with a small number of Agrostis matsumurae Hack. ex Honda ,Potentilla discolor, Polygonum paleaceum, Cecropis daurica,Trollius chinensis, Epilobium,Primula malacoides, Swertia,Carex tristachya, Festuca ovina, Gentianella pygmaea, Elsholtzia ciliata（Thunb.）Hyland., Fragaria vesca. Lonicera japonica, Spiraea salicifolia and Rhododendron lapponicum on its borders.

(18) Freeze Meadows: 40-50cm tall meadows located at relatively flat non-forest ridges and slopes above 4200m altitude. Dominant species there is Kobresia stolonifera Y. C. Tang ex P. C. Li. Alpine species such as Kobresia loliacea, Scutellaria amoena C. H. Wright., Allium victorialis, Persicaria capitata, Carex, Juncus, Aster, Primula, Draba, Geranium and Apiaceae. The meadows are 90-95% covered by vegetation.

(19) Meadows on Sparse Screes: Located at screes above 4200m altitude. The sparse vegetation is limited in its variation and small in its size. Arenaria Linn., Meconopsis Vig., Saussurea DC. , Cremanthodium Benth., Corydalis,Draba nemorosa L., Crassulaceae,Saxifraga stolonifera Curt., Kobresia myosuroides ,Ranunculaceae are common there. Cushion shaped plants that grow on rock surplus such as Arenaria kansuensis Maxim, Diapensiaceae, Tripogon filiformis can sometimes be found on the fixed gravels below screes.

3.5 Animal and plant species resources

1) Fauna and its Diversity

The Fauna here is the combination of Oriental and Palaearctic species, including 148 kinds of mammals, which accounts for 25% of China's total, 106 kinds of Oriental species, 72.5% of China's total, 22 kinds of Palaearctic species, 14.3% of China's total, 20 kinds of cosmopolitan species, 13.2% of China's total; 58 kinds of which are regional exclusive, 39 kinds of which are Hengduan Mountains exclusive, 12 kinds of which are Hengduan mountains - Himalayas exclusive, six kinds of which are Qinghai-Tibet Plateau exclusive. Additionally, the area has recorded nearly 500 species of birds, the only habitat of Yunnan golden monkeys, which are under China animal protection at the national level. There are more than 2,000 of them living in Baima Snow Mountain area, marks 70 % of the total.

2) Flora and its Diversity

The rich diversity of plants can be attributed to the complex geographical component—fifteen kinds of components in this area. Most geographical components of genus are north temperate (20.2%), followed by pan-tropical (14.2%), tropical Asian (13.0%) and East Asia (13.0%). Most geographical components of species are Chinese unique ones (45.0%), followed by East Asia (25.0%), Tropical Asian (8.5%). The area is famous for its species uniqueness and it is the place with most endemic plants in the northern hemisphere, which has 12 East Asian endemic species, 44 Chinese endemic genus, and two thousand and seven hundred Chinese endemic species. About 600 species of them are endemic to the Three Parallel Rivers area. Local flora includes 58 China-Himalayan sub-genus, which is 8% of the genus. It reflects its close environmental linkage with the Himalayan region.

It ranks the first place among the seventeen Chinese "key area" for biodiversity conservation and it is one of the key areas of the world biodiversity conservation for its riches diversity of higher plant species in China. The area is no bigger than 0.4% of the nation's territory but it has more than 20% of the nation's high-level plant species and 25% of the nation's high level animal species.

The area also has abundant tree species with more than 300 kinds of timber tree species, which makes it the major natural forest protection area. There are six conifer families, seventeen genus and thirty-four species, mainly distributed in the range of 3000 ~ 4000m altitude. According to the survey data in different regions, Gaoligongshan records 4,294 kinds of seed plants that can be further categorized into 201 families and 1103 genus, which has also the most concentrated distribution of Orchidaceae that can be categorized into 264 species and 74 genus. Baima Snow Mountain records 167 families, 627 genus and 1,835 species of vascular plants, which include 6 families, 15 genus, 29 species of gymnosperms ; 135 families ,565 genus 1674 species of angiosperms. Among them, 322 species are endemic to China, 425 species are endemic to Hengduan Mountains, 125 species are endemic to Three Parallel Rivers area, and 11 species are endemic to Baima Snow Mountain. Laojun Mountain Nature Reserve has a total of 151 families 637 genus and 1803 species of wild seed plants. There are 5 families, 15 genus and 30 species of gymnosperms, 125 families 506 genus and 1527 species of dicotyledon, 21 families 116 genus and 246 species of monocots among them.

More than 200 species Seed plants in the area are from large families including Asteraceae, Ranunculaceae, Rosaceae, and other typical temperate distributed large families, orchids and other tropical distributed families , Fabaceae, Poaceae and other worldwide distributed families. There are also more than 150 big species such as Umbelliferae, Ericaceae, Cruciferae, Labiatae, etc., mainly originated from the North Temperate Zone.

3) Biodiversity conservation

The "Three Parallel Rivers" area are concentrated by natural reserves and the area has been listed as The World Cultural and Natural Heritage since 2003. Below is the recent development of Natural Reserves in the area:

Chart 1: Data of Natural Reserves in the 'Three Parallel Rivers Area

Number	Natural Reserve District	Level	Location	Administrative District	Area(hm^2)
1	Gaoligongshan	National	N24°56′-28°22′ ; E98°08′-98°52′	Baoshan、Nujiang	405549
2	Baima Snow Mountain	National	N27°24′-28°36′ ; E98°57′-99°25′	Deqin、Weixi	281640
3	Jade Dragon Snow Mountain	Provincial	N27°03′-27°40′ ; E100°04′-100°17′	Yulong	26000
4	Haba Snow Mountain	Provincial	N27°10′-27°22′ ; E100°02′-100°14′	Shangri-La	21908
5	Bitahai	Provincial	N27°46′-27°55′ ; E99°54′-100°03′	Shangri-La	14133
6	Panahai	Provincial	N27°49′-27°55′ ; E99°37′-99°43′	Shangri-La	2400
7	Luguhu	Provincial	N27°36′-27°47′ ; E100°43′-100°54′	Ninglang	8133
8	lashihai	Provincial	N26°44′-27°00′ ; E100°05′-100°13′	Yulong	6523
9	Lanpingyunling	Provincial	N26°10′-26°58′ ; E99°11′-99°27′	Lanping	75894
10	Laojunshan	National Park		Weixi,lanping	

3.6 Major Natural Disasters

The ecosystem of the area is vastly based on primeval forests, which is in general well preserved. However, due to steep terrain and complicated bedrock, human activities can easily induce soil erosion, landslides and mudslides or other geological disasters. In the past decade, Yunnan's mountainous highway constructions (especially the inter-village networks) have significantly increased the frequency of such natural disasters. On the other hand, forest fire becomes another frequent natural disaster because of the vast forest area, large proportion of primeval forest, and the drought spring wind. Worth to note that Lijiang City is particularly vulnerable to such threat. Furthermore, the invasion of alien species is causing considerable jeopardy to local ecosystem. As in 2007, the outbreak of pine caterpillars in Diqing caused a loss of nearly 300,000 acres of the primeval fir forest, and 100,000 acres of loss are from the Baima Snow Mountain. In addition, due to higher average altitude and low temperature, heat cannot be effectively accumulated hence abnormal cold wave would generate a great impact on agricultural production, resulting in bad food and cash crop harvest.

4. Demography of the Project Area

4.1 Human Resources (including population density, ethnic, educational and age group and gender distribution of local population)

The Three Parallel Rivers area includes three administrative areas including Nujiang Lisu Autonomous Prefectures, Diqing Tibetan Autonomous Prefecture and 886 village committees, 66 townships, and 8 counties of Lijiang City. It is one of the few in the world that has multi-ethnic, multi-lingual, multi-religious, multi-customary background, where is also home to Tibetan, Lisu, Naxi, Nu, Yi, Dulong, Bai, Pumi, De'ang, Jingpo, Han and other 16 ethnic communities. Local population is around 4.4 million, 2.71million of which are ethnic minorities that accounts for 61% of the total population.

Chart 2: Demography of Two prefectures and one city in the area （ 6th Census in 2010 ）

Demography	Nujiang Prefecture	Diqing Prefecture	Lijiang City
Population Density （ Men/km^2 ）	36.3	16.8	60.4
Ethnic Minorities-Majority Ratio （ % ）	87.7	88.7	56.8
Average Population per Household	3.54	3.91	3.67
Sex Ratio	112.51	113.88	106.64

（Male/Female）			
Education： Illiteracy（%）	16.1	12.7	16.3
Completion of Primary Education（%）	40.4	44.1	34.5
Completion of Secondary Education （%）	38.6	35.7	42.5
Completion of Tertiary Education（%）	4.9	7.5	6.7
Elderly(>65)Infant (0~14)Population （%）	21.62+6.09	18.19+6.57	18.28+7.72
Urban-Rural Population Ratio	22.1 : 79.9	24.89 : 75.11	27.8 : 72.2

The area has a relatively low population density. Ethnic minorities are the dominant component of local population, while there is a significant imbalance between male and female. Age structure is concentrated in younger segments that elderly population is 7% lower than average. Education is less popular here that illiteracy rate is 10% higher than average. Urban and rural population ratio remains approximately in 1: 3. Among these areas, the highest population density is in the 4 counties and 1 district under Lijiang city. There are twelfth permanent residing ethnic minorities yet are they dispersedly located, most of them are ethnic Naxi, Bai or Yi. Ethnic minorities there occupy the lowest proportion of population among elsewhere, but they achieve a more balanced sex ratio, as well as the highest average education level. Hence they have the highest degree of urbanization and elderly ratio. 48.2% of population in the four autonomous counties under Nujiang Lisu Autonomous Prefecture are ethnic Lisu. There are also Dulong and Nu communities, which can only be found in Nujiang. It is the most ethnically diversified autonomous prefecture among its counterparts in China. Also, the prefecture has the youngest population and the tiniest size of family. The three counties under Diqing Tibetan Autonomous Prefecture have the highest ratio of ethnic minorities' population, mainly Tibetan, against the ethnic majority. They have the highest sex ratio and men per household, but also a relatively low average education level even when they have the highest population proportion of university student and the lowest rate of illiteracy.

It has been a long standing policy of local authorities to set up primary schools in populated areas and teaching points in remote areas. But many students are dropping off their studies because of poor local economic development, crippled transportation, and lack of teaching staffs and facilities and negligence of the importance of education. In the past few years, quality of teaching has been

improving as the central government has actively responded to the problem by centralizing recourses, such as building primary schools in towns, Junior schools in the capital of counties, and high school in the cities /capital of Prefectures, but on the other hand, students face a longer journey to school and a more expensive costs of education. Therefore, further improvement of education system in the project area is still needed.

4.2 Socio-Economic Performance (including economic level/industrial structure/source of income and livelihood activities)

Although rural population counts ¾ of the total population living in the two prefectures and one city in the Three Parallel Rivers area, industry structure of regional economy is in a "3rd 2nd 1st" sequence of scales. In other words, the largest income is made by the tertiary industry (especially tourism), followed by the secondary sector, and the primary sector contributes less than 20% of economic performance. In General Speaking, the scale of economy between Lijiang, Diqing and Nujiang is in the ration of 3: 2: 1, but per capita economic level, from high to low respectively, can be sorted as Diqing, Lijiang, Nujiang. The 2012 statistics indicated that the economic growth of the entire area was about 15 %, which was higher than national average. The growth of second and tertiary sector was higher than 10 %, while agricultural growth was around 7% or less. In comparison, Nujiang Prefecture recorded the slowest growth. Lijiang's industrial growth is higher than the first and tertiary industries, unlike the other two prefectures. Three places also have a significantly different income disparity rate between urban and rural population, where was 3.66 times in Lijiang, 4.52 times in Diqing and 5.13 times in Nujiang.

Chart 3, Economic Statistics of two prefectures and one city in the three parallel rivers area

Economic indicators	Nujiang Prefecture	Diqing Prefecture	Lijiang City
GDP（100 Million）	74.941	113.628	212.240
GDP per capita （10,000）	1.403	2.581	1.705
Ratio of Primary, Secondary, Tertiary Sector	11:36:53	8.0:40.2:5 1.8	18.1:38 .3:43.6
Growth of GDP per capita（%）	15.6	15.4	15.8
Disposable income of Urban Population （RMB）	14221	21535	18620

Disposable income of Rural Population (RMB)	2773	4769	5094
Growth of Primary Sector (%)	6.2	7.0	7.0
Growth of Secondary Sector (%)	9.7	16.3	21.4
Growth of Tertiary Sector (%)	11.0	17.3	13.6

With regard to the significant altitude difference within the area, it is possible to grow a vast variety of crops such as rice, maize, wheat, buckwheat, oats, beans, potatoes and vegetables. It is also common for local economic forestry to produce walnut, chestnut, ginkgo nuts and grapes, plums, citrus and other fruit. In addition, there are some sizeable traditional Chinese herbal medicines planting. Main livestock in the area are cattle, sheep, horses, mules, donkeys, pigs, chickens etc. Also Tibetan residents have a long history of dairy in alpine meadows. But the collection of natural products from forests, such as mushrooms, cordyceps, gastrodia, paris polyphylla and other traditional Chinese herbal medicines, is still an important source of income to the rural economy.

Economic activities of communities residing in the mid-upper level of mountains are closely related to the natural reserve nearby. They usually make a living by collecting natural products from forests, harvesting fire wood and timber, grazing, and reclamation. These shall make a negative impact on the natural forest ecosystem. Besides, there has been an increasingly number of wildlife intrusion since the past few years that threatens local economic activities. In addition, homogeneous source of income and the below-average livelihood to a certain extend discourage local communities from playing a greater role in the cause of environment protection. In order to balance the interest of human and nature, it is advisable to establish a comprehensive and reasonable mechanism for natural resources protection, management and sustainable use, and introduce profitable and environmentally friendly production.

4.3 Culture (including tourism resources, tradition customs, intangible cultural heritage)

The entire project is launched in a multi-ethnic, multi-religious area characterized by its ancient, mysterious, vast and rich culture. Its multi-ethnic, multi-religious, multi-lingual and exotic nature has inspired diversified practices of custom, which is rare in the world. In its thousands years of history, the "Tea Horse Road" has linked up indigenous communities, and has achieved interdependence with Mother Nature. As a consequence, there are numerous historical and cultural heritages so as the unique ecological civilization, including the glamorous literature, music and dance.

The variety of local festival celebrations:

1) There are many Tibetan festivals that celebrations are held in almost every month. Folk festivals and religious practices are interspersed with each other. Traditional festivals, such as Tibetan New Year, Bathing Festival, Sakadawa Festival, Shoton festival and Ongkor Festival, are the most special and sizable. There are also many other celebrations such as Darma Festival, Flower Festival, Shangjiu Festival, Langzharejia Festival, Doll Festival, Erxi festival, Luorangzhahua, Bathing Festival, Exorcism festival, Sound Waves festival, Butter Sculpture Festival, Palden Lhamo festival , Zhuanshanhui. Local intangible cultural heritages include Tibetan drama, Reba dance, Guozhuang Dance, and Xuanzi dance, which are culturally valuable.
2) The Yi ethnic group also has many festivals, and they can be categorized into festivals for productivity, social events, memorial festivals, celebrative festivals and worship festivals. Famous festivals are Torch festival, herbs festival, bullfighting festival, Yi New Year, the horse racing festival, Mountain Festival. Bullfighting, horse racing, archery, grazing around the hills, playing moqiu, worship of gods of mountain, and sheepskin dance all contain very strong local characteristics.
3) Popular Lisu ethnic group festivals are Kuoshi Festival, new rice festival, knife festival, torch festival, harvest festival, bath pond festival, singing festival, and crossbow shooting sessions.
4) Naxi ethnic group has a long and glamorous tradition due to its relatively higher education level and the legacy of Naxi Kingdom. The old town of Lijiang, centre of Naxi history and culture, is a World Cultural Heritage. Their 'Dongba Characters' and 'Naxi Music' are also intangible cultural heritages.
5) Bai ethnic group is one of the most sophisticated ethnic minority in Yunnan Province. They founded the Nanzhao-Dali Kingdom that lasted five centuries. Until today, Bai still preserve their unique and affluent celebration events, as well as their special style of architecture, painting and sculpture.
6) Grand New Year Festival, Xuemenkanyoushan Festival, Dragon Boat Festival are major events to Pumi ethnic communities

5 Landscape description

5.1 Landscape structure and dynamics, matrix background, plaques and corridors

The landscape of the area is vertically distinguished into mountain and ravine, and isolate between mountains and between rivers. Apparent elevation gradient provides a promising condition for different types of vegetation as well as the interchange between them. At low altitude area, arid shrub constitutes a specific matrix of landscape while floodplains, terraces at different altitudes and ancient planation constitute the plaques of human settlement and agricultural development. Distribution of which is mainly affected by the terrain slope and aspect, in other words, farmland and settlements are always located in gentle sunny slopes with valleys nearby to secure water supply.

The main landscape network of the area is expanded along with rivers. On the one hand, it constitutes corridor for the immigration of animals and plants. On the other hand, it creates an obstacle of connection on vertical direction. Such landscape mainly contributes to the differentiation, variety and endemism of species. Road system that extends along with river sides

becomes the most important artificial corridors and networks of landscape. The large number of mountain highway constructions starting from the 90s, especially inter-villages highway construction projects in the past decade, have connected rural population but also have massively destructed vegetation and have fragmentised habitats, thus have exacerbated the difficulties for wildlife to cross river valleys. In the meantime, it has greatly increased the invasion of alien animals and plants along roads towards hinterlands of the area, as to place local biodiversity at stake.

（1）Treeline along the glacier

（2）Yunnan Golden Monkey

（3）Arid Valley

（4）Newly constructed Highways

（5）Deforestation

5.2 Landscape characters

1) Forest Vegetation Landscape: Intact vertical forest vegetation. The two main forests are consisted by firs and spruces from altitude of 3,000 m to 4,300 m, with total area of several hundred thousand hectares.

2) Alpine flowers and rhododendron bushes: The project area is one of China's and even the world's most concentrated area of alpine flowers with almost a hundred species of rhododendron, 50 kinds of Gentiana, 60 kinds of primrose, 40 kinds of Lilies, 70 kinds of Orchids, and 10 kinds of Meconopsis. Blossoms are available throughout all seasons, especially from April to July, when rhododendron flowers are at its best. Rhododendron are widely distributed in the area, more variety of which can be found as the altitude gets higher, and gradually becomes the dominant vegetation.

3) Alpine meadows: There is a wide range of alpine meadows at altitude of 4,000 m or above. In Zhuping alpine grassland of Mt. Laojunshan, dwarf rhododendrons and wild flowers are growing everywhere.

4) Danxia Landform: mainly in Mt. Laojunshan Area. It is a Cenozoic Tertiary Baoxiang Temple group (E2b) where thick layer of red sandstone, siltstone, conglomerate occupy an area of 240 km^2. By the force of nature, colourful cliffs, stones and other Danxia landscapes beautifies the area. The massive weathering crack surface becomes the "Qianguishan (thousands turtle-like mountains)" spectacle. Mt. Laojunshan is the largest and highest Danxia landform, which is extremely valuable.

5) Alpine gorges: Meili Snow Mountain, Baima Snow Mountain, Yulong Snow Mountain, and Haba Snow Mountain snow throughout the year. The huge mountain bodies and its surrounding steep valleys consist the magnificent view of Alpine gorge.

6) Glaciers: Mingyong Glacier in Meili Snow Mountain, glaciers beside Zalaqueni Peak of Baima Snow Mountain, and U-shaped valleys are spectacular landscapes in the area. There are also a lot of blade- shape ancient glaciers, glacial cirques and glacial lakes.

5.3 Land Usage (pattern, composition, intensity and evolution)

The area is sparsely populated and vastly covered by forests. Hence forestry is the dominant purpose of land usage. It is a tradition shared by many ethnic minorities groups to utilize resources in forest for house building, furniture making, food, heating, and collect different kinds of forest products for food, medicine, and goods. Forestry plays a decisive significance to local traditional commodity economy especially the sales of Chinese caterpillar fungus, matsutake and a variety of edible mushrooms and herbs.

Agricultural lands are mainly confined to floodplains on relatively gentle slopes, mountain terraces and a small number of high-altitude planation. However, such lands are limited in supply and scattered in shape. The long history of slash and burn, down slope planting, so as high ratio of hanging slope, has exacerbated the problem of soil erosion and depletion of soil fertility. Eventually it undermines land and labour productivity.

Livestock is an important source of income to many ethnic minorities groups. In addition to feeding chickens, dogs, pigs and other domestic animals, the prevalence of inter-mountain glades and understory plants enable alpine yak breeding. Burning mountains had been a way to sustain pastures and meadows until it was officially suspended decades ago. However, alpine meadows above treeline are still popular stations for husbandry. Together with the expansion of its scale, part of vegetation in the area is degrading.

Lands in the area are consisted by forests, thickets, barren hills and meadows, alpine pastures, farmlands and lands covered by ices and snows. Due to the consistency of the overall structure of landscape, land use/cover ratio of the area is relatively similar. Taking Baima Snow Mountain Nature Reserve as an example, its total area is 281,640 hectares, including 235,730 hectares of state-owned forest, which occupy 83.7% of the total area; 45,910 hectares of collective forest, which occupy 16.3% of the total area; the Nature Reserve occupies 219,950 hectares of forestry land (including 131,306 hectares of forest land, 28,211 hectares of woodlands, 17,372 hectares of shrub land, 43,061 hectares of barren hill and wasteland), 55,569 hectares of non-forest land (including 4,906 hectares of paddy farmland, 5,619 hectares of pasture, 45,045 hectares of other land), 6,121 hectares of inferior land; the surrounding communities own 119,800 mu of arable land , which is 1.64 mu per capita; The communities inside the Nature Reserve owns 22,200 mu of arable land , which is 1.57 mu per capita. Qi Luo Village of Weixi County has the highest arable land per capita, which is 2.7 mu per capita. Shusong Village of Deqin County has the lowest rate, which is only 0.86 mu per capita.

5.4 Major threats facing the Landscape

Vertical series of vegetation in the project area are affluent and intact, but they are also highly vulnerable to current rapid economic development and the increasing population pressures. Major ecological threats are as followed:

1) Human disturbance to the small size and scattered moist evergreen broadleaf forests and semi-humid evergreen broadleaf forests in valleys;
2) Subalpine dark coniferous forests are regarded as high-quality building material. The demand for logging has boosted recently due to rapid economic development and the faster construction of houses. Enormous lumbering of Torreya yunnanensis , Cephalotaxus oliveri and Taxus yunnanensis has been recorded.
3) Because of population growth and agricultural development, expansion of meadows and pastures through deforestation or burning forests is occasionally occurred.
4) The development of local tourism leads to the improvement of transformation, resulting in damage to a large area of vegetation beneath roads, habitat fragmentation and soil erosion. At the same time the invasion of alien species become more irresistible.
5) The extensive exploitation of mineral resources damages the landscape, for instance small-scale phosphate mining in Weixi, Lanping, Lushui dilapidates mountains, pollutes local water resources and exacerbates soil erosion.
6) The project area is located in the Alpine Canyons area, the vertical gradient of the climate is very obvious. According to climate change scenario provided by IPCC5 and the research results of climate observations over the past half century, the threat facing the alpine valley in north-western Yunnan under future climate change scenarios is relatively small, the trend of climate warming is not obvious, and there is no significant drought signs. However, due to the steep terrain and good drainage conditions, ecosystem is sensitive to the fluctuations of seasonally drought, especially prone to local drought, which will have certain impact on local key industries such as Tricholoma matsutake, cordyceps and other local community economic activities.

6. Vision of landscape management

6.1 Vision and goal

Strengthening protection and management to the flagship species of Yunnan Golden Monkey and other rare wild animal and plant resources in the project area; Enhancing public awareness about environmental protection; stimulating local support and participation in the conservation of flagship species of Yunnan Golden Monkey and rare wild animal and plant resources; strengthening cooperation between local communities and nature reserves; enhancing scientific management capabilities; improving local people's livelihood; balancing socio-economic development and conservation of natural resources.

6.2 Expected Results and indicators

In accordance with SGP OP6 national strategic objectives, expected results of the project are assessed by indicators below:

1) Ecosystem service maintained and improved; land degradation and habitat loss reduced; species conservation status improved.

- number and hectares of community conserved areas increased
- hectares of ecosystems protected
- number of key species conserved and habitat conservation improved
- hectares of land under sustainable management and hectares of revegetation

2) Local livelihoods improved through climate smart agroecology practices

- hectares of land that applied sustainable management technology
- number of householders who apply traditional knowledge and practices for agricultural ecosystem and landscape management
- types of diversified livelihood and number of people who develop diversified livelihood
- cost saved and tons of CO_2 reduced through renewable energy utilization
- amount of community income increased
- type and number of environment friendly products and farmers' cooperatives developed

3) Landscape governance system and mechanism involving multi-stakeholders created and strengthened for sustainable land use and economic development

- types and numbers of stakeholders who participate in creating and strengthening landscape governance system and mechanism (gender, race and age disaggregated)
- NGOs, CBOs and community's participation in decision making at landscape level improved
- types of nature conservation and rural governance institutions

4) Knowledge management at landscape level strengthened

- Number of case studies and best practices recorded and disseminated
- Number of knowledge products that contribute to SGP global digital library

6.3 Potential projects to be supported

1) Projects for the protection of biological diversity flagship species (such as Yunnan golden monkey), landscape optimization and community self-governing;
2) Projects for the community conservation of natural resources and the introduction of environmental friendly technologies for alternative livelihood such as sustainable collection of Matsutake and cordyceps; artificial cultivation and alternative technology development of rare species; the development of nature education, eco-tourism and ethnic minority handicraft etc.
3) Projects for the promotion of agroforestry and low-carbon development based on different elevation levels and climate patterns in project area;
4) Projects for revegetation and the prevention of soil erosion in forest fire burned areas;
5) Projects for the establishment of ICCAs for rare species conservation outside protected areas;
6) Projects for conservation of crop genetic resources (seed banks, seed fairs, markets)
7) Projects for dissemination and education on environmental protection and sustainable development with respect to indigenous cultures, religions and customs;
8) Projects that facilitate to establish ICCA coalition and synergize eco-tourism resources conservation that transcend beyond landscape unit;
9) Projects that tackle road-construction-induced landscape fragmentation, restore soil and water quality and enhance landscape ecological safety;
10) Projects that strengthen self-governance of rural community, encourage indigenous cultural practice, and develop cooperation platform between CSOs and local authorities
11) Projects that facilitate to establish farmers' association based on knowledge, technology and role models and to expand financing platform for rural community self-governance

7. Conclusion (Reasons of selection)

7.1 Synergic elements of landscape election

"Three Parallel Rivers" is a unique alpine landscape located at the intersection of East Asia, South Asia and the Qinghai-Tibet Plateau. The area is China's only World Natural Heritage site that meets all four criteria (①outstanding example that represents the significant stage of the evolution history of the earth;②outstanding example that represents the on-going significant geographical process, biological evolution process and the interaction between human and natural environment;③unique, rare or magnificent natural phenomenon, topography or places with extraordinary natural beauty;④existing habitats for rare and endangered wildlife species.) Besides, Lijiang old town in this area is also a World Cultural Heritage.

The area is located at the hinterland of "East Himalaya -Hengduan mountain ", where is renowned as the top ten most hotspot of biodiversity in the world. The area is habitat to 20% of seed plants in China and 25 vertebrate species. The area itself also has the world's richest biodiversity except the tropics, and the top priority of "China National Biodiversity Conservation Strategy and Action Plan".

There are also sixteen ethnic minorities groups in the area, where ethnic groups, languages, religions and customs co-exist. Each ethnic group has their own traditional approach in managing natural resources. These traditions have a mutual influence to each other while none of them has been entirely assimilated. It leads to the multi-models natural resources management and various Community Conserved Areas such as sacred mountains and holy lakes. As the area is populated

by multiple ethnic groups, dominated by Tibetans, local authorities are more resilient in policies and its execution. Therefore the area becomes the best place for experimental field of policies.

7.2 Status of ecosystem conservation and natural resources utilization

There are eight provincial or above level natural reserves in the area including Gaoligongshan National Nature Reserve, Baima Snow Mountain National Nature Reserve and national parks such as Meili Snow Mountain, Lake Pudacuo, and Mt. Laojunshan. The existing natural conservation policies include primeval forests in the area into their jurisdiction. But the surrounding primeval forests, no matter state or collectively owned, have been shrinking in the past three decades.

On the other hand, local economy, regardless of the tertiary sector fuelled by tourism or the primary sector anchored by the sales of forest products, is highly depended on the healthy structure and function of local ecosystem. However, utilization of natural resources in the past twenty years, including tourism and hydropower plants, may have exceeded the carrying capacity of environment. At the same time, unprecedented pressure has been exerted to the environment when local infrastructure, characterised by road construction and urban development, has been rapidly improved in the past decade.

In view of this situation, it is necessary to introduce alternative development strategy in addition to the national natural conservation policies. It will be at prime theoretical and practical significance to empower local communities in the area by setting up community conserved areas in order to seek balance between socio-economic development and environmental protection.

7.3 Connections and interactions of major stakeholders

In this area, natural conversation authority has actively cooperated with local communities, as such model has been improved in the last decade. Hence natural reserves are friendly to all levels of local governments. This cooperative model is commended by the State Forestry Administration and be taken as role model to its counterparts. Furthermore, the "Three Parallel Rivers World Heritage Site," "Old Town of Lijiang World Cultural Heritage Site", "Tiger Leaping Gorge Scenic Area, "Yunnan Golden Monkey" etc. consist a compelling brand. The area has more than ten years of experience to build up partnership with domestic and international NGOs for natural conservation and community development. The active knowledge and technology exchanges of local civil society also inspire the establishment of numerous local environmental NGOs.

II. Baseline Information Assessment Report on Typical Landscape of Sanjiangyuan Region

1. Name of the landscape: Alpine grassland and wetland landscape in Sanjiangyuan region

2. Geographical location of this landscape

2.1 Longitude, Latitude and Range of Altitude

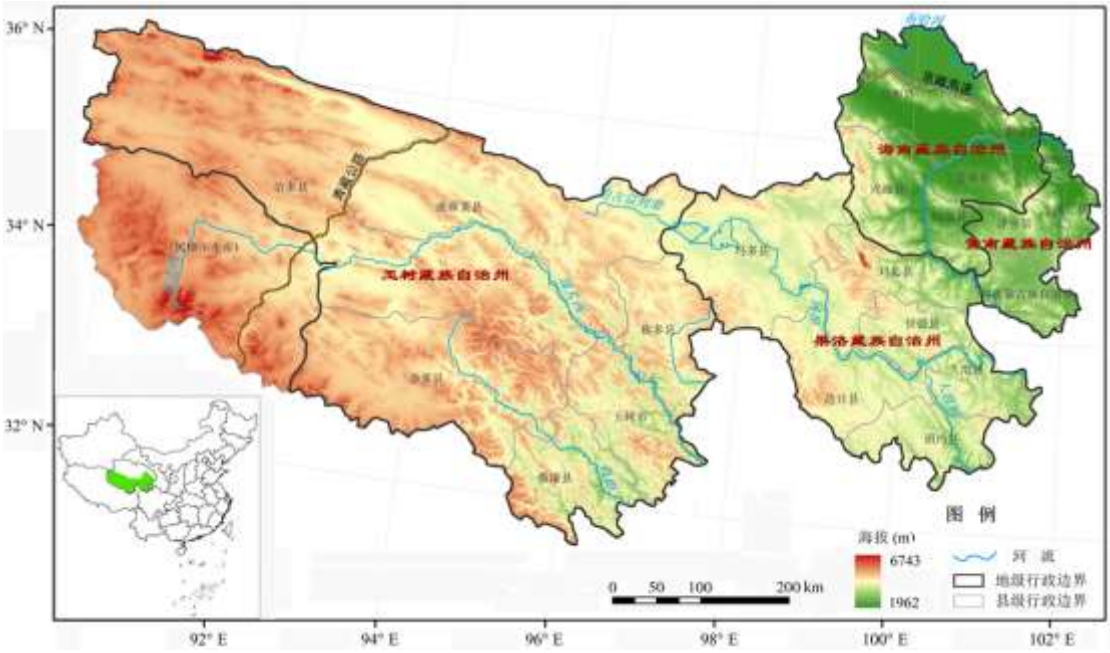
Sanjiangyuan Nature Reserve locates at 89°45′~102°23′ E and 31°35’~36°16’ N. Its altitude ranges from 3335 to 6621 metres. The lowest part of it is at the Jinsha River of the southeast of Yushu Tibetan Autonomous prefecture and the highest part of it is at Geladandong—the main peak of Tanggula Mountain. The average altitude of it is around 4500 metres.

2.2 Geography Location and Boundary

Sanjiangyuan Region locates in the southwest of Qinghai Province, the hinterland of Qinghai-Tibetan Plateau. It is the source of the Yangtze River, the Yellow River and the Lancang River, and is called “the water tower of Asia”. The region is between Kunlun Mountains and Tanggula Mountains in the north-south direction, separated from the east part of Sanjiangyuan region by Bayan Har Mountains in the east with the total area of 363,000km^2.

2.3 The Program-related Administrative Areas

Sanjiangyuan region includes 16 counties of four Tibetan Autonomous Prefectures as Yushu, Guoluo, Hainan, and Huangnan, as well as Tanggula township of Golmud. It accounts for 43% of the total area of Qinghai Province. The region is adjacent to, respectively, Haixi Mongol and Tibetan Autonomous Prefecture, Qinghai Province, Bayingolin Mongol Autonomous Prefecture, Xinjiang Uygur Autonomous Region, Gannan Tibetan Autonomous Prefecture, Gansu Province, Aba Tibetan Autonomous Prefecture, Sichuan province and Changdu and **Nagqu Prefecture, Tibet in the north, northwest, east, southeast and southwest direction.**



Picture 1. map of geographic location of Sanjiangyuan Region

3. General Situation of Natural Environment

3.1 Climatic Conditions

This region features typical highland continental climate with rains and heat in the same period and a contrasting separation between the wet and the dry seasons. Winter of it is long that lasts for 7-8 months while warm seasons are short. Average temperature for the year is -5.6~3.8℃, and the average temperature for July, as the hottest season in the year, is 6.4-13.2℃, with the extreme maximum temperature of 28℃. The coldest month for the year is January, with the average temperature of -6.6 ~ -13.8℃ and the extreme minimum temperature of -48℃. The annual temperature range is small while the daily temperature range is large. This region enjoys a long duration of sunshine with strong solar radiation. Frost-free seasons here are short and plants here have a short growing period. Sunshine percentage of the region is 50~65%, and the sunshine duration of the year is 2300~2900 hours. The solar radiation amount of the year is 5500~6800 MJ/M ².

The annual average precipitation of Sanjiangyuan region is 262.2~772.8mm, of which precipitation from June to September takes up 75%, and the proportion of nocturnal precipitation is up to 55~66%. Annual evaporation is 730~1700mm. The number of days with sandstorm is generally around 19, and could be up to 40 days at most. The oxygen level in the air of the region is 40 ~ 60% that of the sea level.

3.2 Topographical Features

Sanjiangyuan region locates at the plateau, with the large and stretching east-west parallel mountains forming its basic skeleton. There are East Kunlun Mountains and Mt. Amne Machin in the north, Tanggula Mountains in the south, as well as the east-west Bayan Har Mountains and Hoh Xil Mountains in the middle. There are lots of snow peaks on the high mountains. Glaciers and periglacial landforms are well-developed here. Among the high mountains, there are flat and broad washlands of the source of the Yangtze River, the Yellow River and the Lancang River. Within this region, there are lots of rivers and lakes, among which there are large areas of alpine meadows. Due to the long frost period and the impeded drainage, large areas of wetlands are formed in the low-lying regions.

3.3 Soil Type

The large difference in altitude in Sanjiangyuan region leads to the obvious vertical zonational differences in soil. The soil types vary from mountain forest soil, chestnut soil, gray cinnamonic soil, mountain meadow soil, alpine steppe soil, alpine meadow soil to alpine desert soil with the rise in altitude. Among these soil types, mountain meadow soil and swamp meadow soil are the most common types, and frozen soil also takes up a large area.

As the geographical age of Qinghai-Tibetan Plateau is young, and the weather there is cold, with the little biochemical reaction and strong physical reaction through the soil-forming process added to it, soils in this region in most cases are barren and thin, with poor water retention capacity and low fertility. They are easy to be eroded and thus cause the loss of water.

3.4 Hydrology and Water Resource

Sanjiangyuan region is called “the water tower of China” and “the water tower of Asia”. It is the the source of the Yangtze River, the Yellow River and the Lancang River. Its output of water resource quantity takes up 49.2% of the total flow of the Yangtze River, 25% of the Yellow River and 15% of the Lancang River. There are lots of rivers, lakes and swamps in this region,

with widespread snow mountains and glaciers as of the highest altitude, the largest size and the most concentrated distribution in the world. The total area of wetlands is up to 73,300 km ², taking up 24% the total area of the natural reserve.

There are around 180 rivers in the region, covering 238,000 km ², with the annual total runoff as 32.417 billion m ³and the hydroelectric potentiality as 5.427 million KW theoretically.

There are around 1,800 lakes of different sizes in Sanjiangyuan region, covering a total area of 5,100 km ², among which 188 are larger than 0.5 square km. The total number of freshwater lakes and brackish water lakes is 148, and they take up of 2623 km ². There are 28 salt lakes of 1,480 km ²in this region.

The area of swamps in the region is around 15,620 km ², occupying 19.6% of the Sanjiangyuan region. The swamps are concentrated in the east and south part of the region which is damper than the west and north part. The total area of glaciers in the region is 1,247 km ²and the amount of glacial ablation is about 989 million m^3, which are mainly located in the drainage basins of Dangqu, Tuotuo and Chumaer rivers.

3.5 Types and Distribution of Vegetation

This region is basically within alpine-cold areas, which features a unique and typical alpine-cold ecological system. Basic vegetation here includes frigid temperate coniferous forest, alpine-cold brushwood, alpine-cold meadow, alpine-cold swamp meadow, alpine-cold grassland, alpine-cold cushion vegetation, alpine-cold rock-flowing hillside vegetation, aquatic vegetation and psammophytic vegetation. They are divided into 14 formation classes and 50 formations.

Most forests are distributed in patches alongside the valleys of the Yangtze River, the Yellow River and the Lancang River which locate at a low altitude. This type of forests is the one that grows in the lowest altitude. The rate of forest coverage in the whole region is about 2.1%.

In general, with the gradient change of moisture and heat from southeast to northwest due to the elevation of altitude, the distribution of plants varies from brushwood, meadow to grassland.

3.6 Specie resources of flora and fauna

Sanjiangyuan region possesses a rich and unique system of plateau flora and fauna, which is the result of evolution that these creatures have been through in order to adapt to the extreme climate here in a long period of time. According to rough statistics, there are 87 families, 471 genuses and 2238 species of vascular plants in this area, which contains 8% of the total number of vegetation species in China, among which herbaceous plants are the most in quantity. Picea balacytila, Meconopsis punicea and Cordyceps sinensis are national secondary protection species. There are 31 species of Orchidaceae listed in the appendix Ⅱ of CITES, and 34 listed into the provincial protection vegetation.

Vegetation in this region belongs to the Arctic flora, a sub-flora of Qinghai-Tibet Plateau. Influenced by the geomorphology of frozen soil, high altitude and plateau climate, the components of flora here are simple, with unitary composition inside the flora, which are mainly single dominant structure and the constructive species and dominant species are noticeable. Alpine-cold meadows that adapt to the alpine-cold and semi-moisture environment well are widely developed in the region. The originality and fragility of vegetation here are outstanding.

There are beasts of 8 orders, 20 families and 85 species, birds of 16 orders, 41 families and 237 species and reptiles of 7 orders, 13 families and 48 species in Sanjiangyuan Natural Reserve. There are 69 species of national key protection animals, among which there are 16 species that belong to the first class and 53 species that are of the second class. The dominant distribution type of wildlife in the region is the unique type of Qinghai-Tibet Plateau, and there are also species of middle Asia type and some widespread species.

There are 913 kinds of traditional Chinese medicine that have been found out in the region, among which 808 kinds belong to plant category exampled by cordyceps sinensis, rhizoma anemarrhenae and Fritillaria thun-bergli; 80 kinds belong to animal category, represented by deer antler and musk.

3.7 Main natural disasters

Within the extreme natural environment, extreme weathers like hail, frost and snowstorm are the main forms of natural disaster. As the process of global warming, the glacier and snow mountains are declining, which has a direct influence of the water supply for plateau lakes and wetlands. As a result, many lakes and wetlands are shrinking or have already dried out. Swamps are disappearing while low humidity meadows are turning into plateau vegetation as the aggravation of ecological frailty.

On the other hand, the growing population and production also contribute to the deterioration of ecology, especially to the deterioration and desertification of grasslands, which lead to the decline of productivity and the capacity in protecting soil. Under this circumstance, forage grass that of good quality is gradually replaced by weeds. Rodents increase rapidly, which leads to the decrease of stock-carrying capacity of pastures, followed by the decline in biodiversity in the area. From a macro perspective, with the deterioration of vegetation and wetland ecological system in the region, its capacity of water conversation also suffers from a decline, which has brought a negative influence to the middle and low reaches of the Yangtze River and is potential to threaten the ecological security around the drainage basin.

4. Demography of the Project Area

4.1 Human Resources

Sanjiangyuan region crosses Yushu Tibetan Autonomous Prefecture, Golog Tibetan Autonomous Prefecture, Hainan Tibetan Autonomous Prefecture and Huangnan Tibetan Autonomous Prefecture, including 21 counties (county-level cities or autonomous counties), 160 townships and 1134 villages (Table 1). Having been a habitation of Tibetan, Hui, Tu, Sala, Mongolia and other ethnic minorities（among which Tu and Sala is endemic and the Tibetan population accounts for more than 90% of the total population), it is one of the regions with the highest proportion of ethnic minority population in China, and a variety of religious beliefs also have been spread here. The poor population accounts for 22.8% of the total population.

Table 1: Population Indicators of Four Prefectures

(The 2010' Sixth Census Data)

Population Index	Yushu Prefecture	Golog Prefecture	Hainan Prefecture	Huangnan Prefecture
Population Density (Person/km^2)	2.00	2.38	9.62	14.32
Minority Population Ratio（%）	96.91	93.43	75.16	93.92
Average Population (Person / Household)	3.99	3.38	3.68	3.87
Sex Ratio (Male / Female)	106.04	110.53	104.75	102.90
Education: Illiteracy Rate (%)	17.85	12.94	17.45	22.37
Primary School Rate (%)	40.42	48.69	44.16	44.29
Middle School Rate (%)	9.97	13.61	22	15.31
College Rate (%)	3.31	5.7	5.1	5.59
Population (%) of Elder (>65 year-old) & Children (0~14 year-old)	31.86+5.13	28.14+4.85	24.74+5.25	26.13+5.84
Ratio of Urban to Rural Population	32.1 : 67.9	24.7 : 75.3	28.5 : 71.5	25.7 : 74.3

In this region, population density is much lower than the national average, and the ethnic minorities, represented by the Tibetan people, are the majority of population, meanwhile there is a significant deviation from the male and female sex ratio; the population age structure is partially younger, and the proportion of the aged population (**>** 65 year-old) is less than 6%; the

education level is relatively backward, the illiteracy rates of the four Tibetan autonomous prefectures are all over 10%, and three of which even exceed 15%; the ratio of urban population to rural population in Yushu is around 1:2 and about 1:3 in other prefectures.

Huangnan Tibetan Autonomous Prefecture, with the highest population density, has four subordinate counties, among which Tibetan population accounted for 68.55%, 13.98% for Mongolian population and 6.52% for Hui population. The prefecture's illiteracy rate is also higher, reaching more than 22%. Hainan Tibetan Autonomous Prefecture has five subordinate counties, with the relatively low population ratio of ethnic minorities; it is a multiracial inhabit area for Tibetans and other ethnic minorities, where 21 minorities living together according to 2009 statistic. Golog Tibetan Autonomous Prefecture, with six subordinate counties, the proportion of the Tibetan population reaching more than 90%, has the highest ratio of male to female, and almost three-quarters of the population engaging in agriculture and animal husbandry. The lowest rate of illiteracy and the highest rate of college students indicates that the education development in Golog is relatively good. There are five subordinate counties in Yushu Tibetan Autonomous Prefecture, the proportion of the Tibetan population reaching more than 97%, it is the most sparsely populated area with the highest average population per household and the lowest population density at the same time.

Compared with the fifth national census in 2000, the illiteracy rates of four prefectures in Sanjiangyuan region reduce to different extend, the increasing proportion of educated population reflecting that the local government attaches great importance to education and the education popularization is rising. The improvement of human capital quality in Guoluo and Yushu is particularly evident, while in Hainan prefecture and Huangnan is relatively slow, less than the average level of Qinghai Province. The illiteracy rate in Hainan and Huangnan was lower than that in Yushu and Guoluo in 2000, but in 2010 they fell behind. Therefore, in this area, it is necessary to popularize the compulsory education of nine years and to eliminate illiteracy among young and middle-aged people.

4.2 Socio-Economic Performance

The production mode in the region is dominated by animal husbandry, with both running agriculture and animal husbandry, and there are sidelines such as Cordyceps and Tibetan herb medicine collection. As the ecological migration and social and economic development, the secondary industry and tertiary industry has also a breakthrough in growth, but due to transportation, electricity, transportation costs, equipment, technology and other factors, the overall industrial development speed is slow. The regional GDP in 2012 reached 4.73 billion yuan, of which the ratio of the primary industry, secondary industry and tertiary industry was 49:

33.4: 17.6. The annual increase rate of regional economy in recent years is over 10% and in 2012 the per capita GDP reaching 13,800 yuan. Urban residents get 21,160 yuan of the per capita disposable income, farmers and herdsmen get 4090 yuan of the per capita net income.

Table 3 Four Prefectures' economic Data in 2012

Economic Indicator	Huangnan Prefecture	Hainan Prefecture	Golog Prefecture	Yushu Prefecture
GDP Total Amount (0.1 Billion Yuan)	58.11	104.35	30.546	47.172
Per Capita GDP (10 Thousand Yuan)	2.239	2.340	1.646	1.204
Proportion of Three Industries	29:37.5:33.5	24:50:26	17:49:34	49:33:18
GDP Growth Rate (%)	12.16	14.1	12	10.7
Disposable Income of Urban Residents (Yuan)	18642.	16557	17405	18894
Net Income of Farmers and Herdsmen (Yuan)	4299	6128	3705	3493
Annual Growth Rate of Primary Industry (%)	4.01	5.3	3.7	1.1
Annual Growth Rate of Secondary Industry (%)	14.85	20.2	11.6	26
Annual Growth Rate of tertiary Industry (%)	16.17	12.4	3.2	11.1

Sanjiangyuan region is a sparsely populated area with relatively backward economy development, the production mode is dominated by animal husbandry, with both running agriculture and animal husbandry, and there are sidelines such as Cordyceps and Tibetan herb medicine collection. Agriculture and animal husbandry population accounts for 4/5 of the total population, meanwhile 65% of the total population is impoverished, comprising 81% of the total agricultural population, which means that the amount of the poor population is large, covering a wide range and the impoverishment degree is deep. There are eight national poverty alleviation counties and eight provincial poverty alleviation counties at present. The development of regional economy is highly dependent on natural resources, traditional farming and animal husbandry, and the main production and life style have caused serious damages to the ecological environment of the region.

In the four prefectures, per capita GDP in Yushu is the lowest, slightly higher in Guoluo, and about twice as much as the Yushu in Huangnan and Hainan. Except Yushu relying mainly on the primary industry, the secondary industry occupies a large proportion in other three prefectures. The statistical data in 2012 shows that the GDP growth rate of four prefectures are all over 10%, the secondary and tertiary industry achieving a rapid growth in general, while the primary industry growing slowly. There is a large income gap between urban and rural residents, especially in Yushu, the proportion reaching 5.4 times. Yushu also has the largest area, covering the central and western parts of Sanjiangyuan region. However, because of over grazing in last decades, vicious spiral of grassland degradation and impoverishment, it becomes the most serious area in ecological degradation with feed-animal imbalance.

With the establishment of Sanjiangyuan comprehensive experimental zone and the implementation of ecological conservation measures, development and utilization of natural resources will be subject to further restrictions in the region, and the area with graze-prohibiting and graze-limiting also will further expand, which will result in difficult adjustment of industrial structures, insufficient scale of ecological economy in short term, many controls for herders in industry conversion and increasingly prominent contradiction between population and environment carrying capacity. How to actively explore an ecological conservation management system and an ecological compensation mechanism reconciled with ecological conservation, improvement of people's livelihood, economic development and social progress, is an important task and challenge in the development of Sanjiangyuan.

4.3 Cultural Characteristics

With Yushu as the center, Sanjiangyuan region is the intersection of the Qinghai Tibet Plateau's ancient culture, namely, the southern Karub culture and northern Kayue culture. Harmony between human and nature is the most characteristic of Tibetan culture, the natural plateau landscape and the culture forming a unity, the most representative is the Anyemaqen Mountain, one of the four major Tibetan sacred mountains, and the mysterious Tangbo ancient path. According to preliminary statistics, there are 283 categories (places) of tourism resources have been listed in plan, including four national cultural relic protection units: Princess Wencheng Temple, Sang Zhou Temple, Xinzhai Holly Stone Scripture Town, Nangqian County Da Na Temple and King Gelsall Thirty Ancient Pagoda, and eighteen provincial cultural relics protection units like Tsongkhapa Sitting Buddha Statue in Gangcha Temple. The 4A level scenic spots approved by the National Tourism Administration contain Lebagou - Princess Wencheng Temple, Jiegu Temple, Dangka Temple, Xinzhai Jiana Holly Stone Pile and La Si Tong Old Tibetan Village; Folk custom museum of Saiba Temple and Gongsa Temple receive the certification of 3A level scenic spots. Meanwhile, Sanjiangyuan region also possesses 10 items of national intangible cultural heritages such as Yushu folk dances, Yushu horse racing and

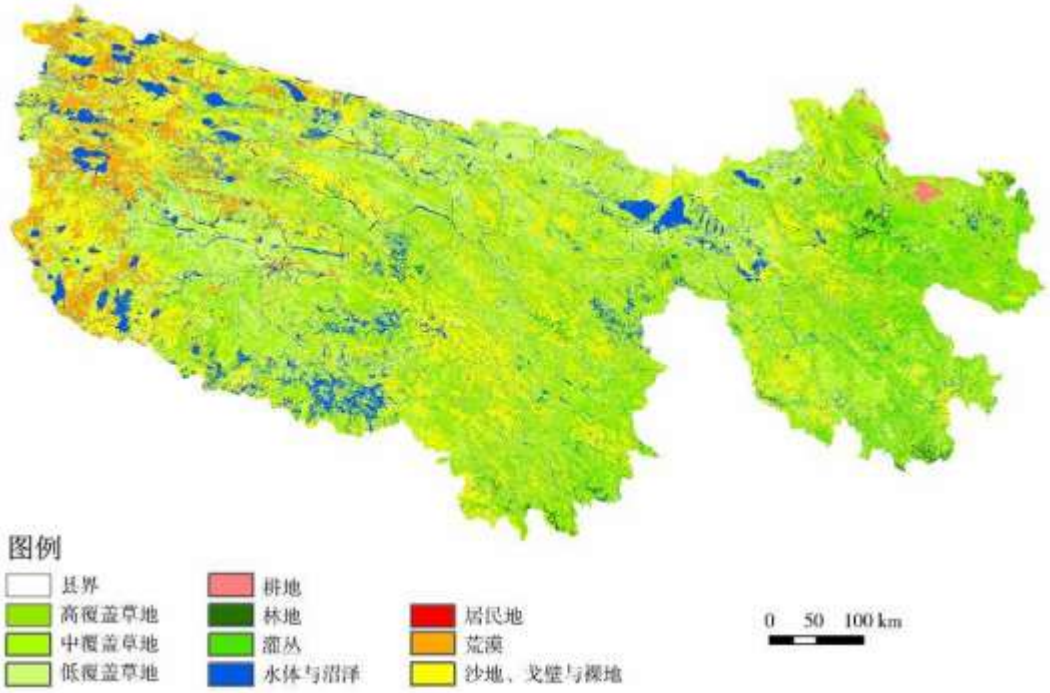
Yushu Tibetan clothes and ornaments, and a variety of more than 200 Tibetan Buddhist temples. The most prestigious cultural resources in which are:

- "King Gelsall": A great heroic epic of the Tibetan people, known as the oriental "Iliad", is an encyclopedia of ancient Tibetan's social history study. "King Gelsall" represents the highest achievement of Tibetan talking-singing art, casting Tibetan ancient myths, legends, stories, poetry and other forms of literature, containing almost all the essence of Tibetan language.
- "Eighteen Temple Fair": Mountain Congregation - godliness, worshipping the mountain and diffusing flowers; Latse Festival - God arrows protect people; Dalton Festival - the banquet for colorful God arrows; Nadun Festival - the longest carnival in the world: Horse Racing Festival - enjoy the passion on horseback; Cow Festival - the happy time of the pastoralists; Nadamu Fair - to review the glorious years. Glamorous ethnic festivals gather the culture essence of multiple ethnic groups.
- Tibetan Opera - Ajram on the grassland; Wutu Dance - wiccan culture and Chu rhyme.

5. Typical Landscape Description

5.1 Landscape structure and dynamics, matrix background, plaques and corridors

The whole framework of the landscape pattern is formed by the parallel mountain ranges and the broad mountain basins in the Sanjiangyuan region. An elevation gradient from the southeast to the northwest with the corresponding wet-dry, warm-cold climate gradient determines the alternation of land cover type. The eight elements of regional landscape are water and marsh, woodland, shrub, high-medium-low covered grassland, desert, sandy land, Gobi, bare land and glacier, in which the grassland is the main type of land cover and landscape matrix. According to the 2008 remote sensing analysis data, grassland accounts for 67.4% of the total area in the region, in which low-covered grassland dominates the largest area with 27.4%, while high-covered and medium-covered grassland occupies 25.6% and 14.4% separately, sandy land, Gobi and bare land cover 15.8%, and water and marsh make up 9.6% Other land cover types account for relatively small areas, forest is mainly distributed on both sides of the valley with the elevation of 3500~4300, composing partial plaques (Map 2). The upstream trunk and tributaries of the Yangtze River, the Yellow River and the Lancang River constitute the main natural corridor network, and relatively sparse roads are the main artificial corridors, there are only two high-grade driveways, national road G214 and provincial road S308.



Map 2 Map of Sanjiangyuan Land Coverage Pattern in 2008

Research shows that the total grassland area had a weak change in the period of 1970-1990, reducing 0.26% between1990 and 2004, and has increased 0.09% in these four years but doesn't reach the level of 1990. High-covered grassland area has decreased and in recent years, the trend of area reduction has been alleviated. Medium-covered grassland area reduced during 1970-1990 and 1990-2004, and there has an increasing trend. Low-covered grassland area increased during 1970-1990 and decreased during 1990-2004, but an obvious increasing trend has occurred. Water and marsh area reduced during 1970-1990 and 1990-2004 but has tended to increase. The expanding trend of sandy land, Gobi and bare land, increasing during 1970-1990 and 1990-2004, has been controlled. The change of other land cover types has minimal interference on the overall pattern due to small area ratios.

（1）Plateau Pasture

（2）Tibetan Wild Ass

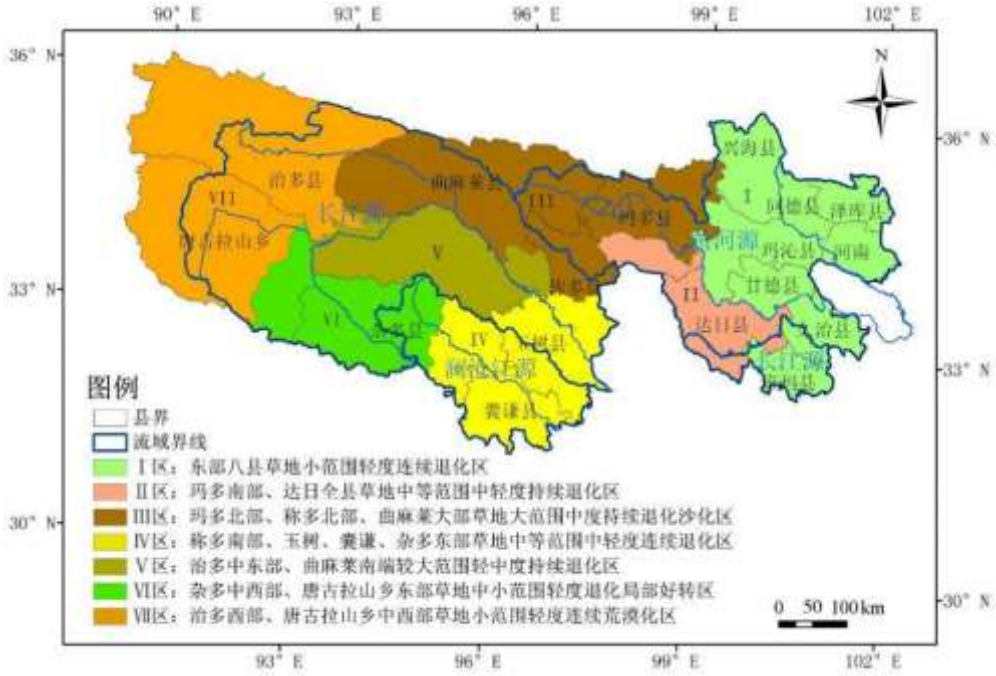
（3）Farmland

（4）Longbao Lake’s Wetland

（5）Tibetan Buddhism Pagoda

5.2 Land-use Characters

The land use in Sanjiangyuan region is mainly based on animal husbandry with agriculture and forestry as supplement. There is 0.21 billion mu of grassland and among which 0.17 billion can be used, accounting for 32% of total available grassland areas in the whole province, over 90% of which are alpine swamp grasslands and alpine meadow grasslands. There is 267,000 mu of cultivated land, mostly planting barley, peas, potato, rape and yuenkanin. There is 390,000 hectares of woodland, 298,000 hectares being covered by shrubland, and the reserves of stumpage are 7.07 million cubic metres.



Map 2. Map of Spatial Pattern of Grassland Degradation in Sanjiangyuan

Animal Husbandry is an operating mode mainly depending on the natural grassland and grazing. In last 30 years, the grassland quality presented an overall degradation trend as a result of continuously increased amount of animals in grassland. The area of "Black Soil land", being controlled by poisonous weeds and with low productivity, constantly expanded. Meanwhile, because of the climate gradually drying from the southeast to the northwest and the terrain gradually steep from the northwest to the southeast, the two environmental gradients, under the influence of increasing human activities, there was a change of landscape pattern that soil erosion in the southeast and desertification in the northwest became intensified (Map 2). From the 21st century onwards, in order to protect the ecological safety of upstream rivers, national and local governments have reinforced the land conservation in Sanjiangyuan region, established the National Nature Reserve of Sanjiangyuan and adopted a series of ecological compensation policies to reduce the amount of livestock, which has improved the quality of the land.

5.3 Major Threats to the Landscape

The major threats to the wetland landscape of alpine meadow in Sanjiangyuan include:

1）Grassland degradation caused by serious rats and pests

More than 10% areas of Sanjiangyuan region are faced with rodent, pest damaged area accounts for 3.73%; the rodent damaged area is about 503×10^4 hm^2, occupying 17% of total area and 28% of available grassland, the amount of pika, zokor and vole has been increased sharply, in some serious damaged area, rodent cave density is as high as 1334 per hm^2 ， pika density reaches 412

per hm^2. Rodent not only scramble for food with cattle and sheep and consume a lot of grass, but also destruct native vegetation by repeated digging and eating grass roots, which result in the formation of patchy secondary bare surface. Especially in the section where pikas coexist with vole, grasslands degenerate completely and lost the value of animal husbandry.

2）Lake withering, groundwater drawdown, reduction of water yield at source

In recent years, the water yield at source has decreased year by year, the situation in the the Yellow River basin is even more serious. According to hydrological observation data for ten years, low water period has appeared for 7 consecutive years on the upper reaches of the Yellow River, the average annual runoff has decreased by 22.7%, and in 2007 first quarter dropped to the lowest point in history, a cutoff occurred at source for the first time; the water level of Ngoring Lake and Gyaring Lake has fallen by nearly 2m, a cutoff occurred between these two rivers.

3）Grassland degradation producing ecological refugees

Traffic inconvenience, weak economic base and technical force, and backward management level exist in Sanjiangyuan region. Animal husbandry production has failed to get rid of the simple operating mode of residing by water and grass and raising animals relying on weather, and the rapid growth of population and livestock further highlights the contradiction of the shortage of grassland resources. The existing livestock population currently are as many as 4 times in 1960s. The serious imbalance in input-output ratio has further accelerated the degradation of grassland, meanwhile the contradiction of supply and demand between forage and livestock has caused the vicious spiral of over grazing - grassland degradation - intensified contradiction between forage and livestock - deterioration of ecological environment, and residents' lives have not been effectively improved for a long time.

4）Damaged biodiversity

Some creatures and their populations showed a sharp decline, biodiversity has suffered and will continue to face enormous damages and threats. The first is the fragmentation of ecological environment, islanding and the loss of diversity. The second is that the species diversity is facing grim situation due to poaching and other acts which has caused the amount of wild animals dropped sharply, 15-20% of the total biological species have been under threat, especially the endemic species of the Qinghai-Tibet Plateau. The third, plateau species have a strong stress resistance gene and special characteristics adapting to high and cold ecological environment, but with the extinction and endangerment of alpine species resources, such genetic advantage has also been threatened.

5）Soil erosion and land desertification

Sanjiangyuan region is one of the most serious area of soil wind erosion, water erosion and freeze-thaw, affected areas reach $1075\times10^4 hm^2$, accounting for 34% of the total area, in which $659\times10^4 hm^2$ areas are facing extremely high erosion, high erosion and moderate erosion. On the other hand, due to climate warming, the annual average temperature of plateau seasonal frozen-soil region has risen by 0.3-0.50℃ in recent 15-20 years and permafrost layer has thinned by 5-7m; as a result, the frozen-soil degradation has exacerbated the degeneration of grassland soil surface, such as land freezing and thawing desertification.

According to the survey, different degrees of degradation have appeared on 50-60% of grassland in Sanjiangyuan region. The area of "Black Soil land" has reached $280\times10^4 hm^2$, accounting for 7% of available grassland area and 80% of the province's "Black Soil land" area; the desertification area also has reached $253\times10^4 hm^2$，and is expanding with an annual speed of $5200 hm^2$; the average increasing rate of desertification has raised from 3.9% in 70s-80s to 20% in 80s-90s. The Fragmentation of native ecological landscape has been increasingly serious, in some areas the vegetation succession presents a reverse succession trend of alpine meadow - degraded alpine meadow - black soil land.

6) Dry and warm climate trend, shrinking lakes, drawdown of groundwater

Over the past 30 years, there has been a clear trend of dry and warm in the project area—southeast of the Tibetan Plateau. In the past 15 - 20 years, due to climate warming, average ground temperature increased by 0.3-0.50 ℃ and the permafrost got thinner by 5-7m in the plateau seasonal frozen region; permafrost degradation exacerbates soil surface degradation of grassland, such as land freeze-thaw sandification and desertification. In recent years, the amount of water from source region is on decrease and the situation is more severe in the Yellow River Basin. According to the decade hydrological observations: Upper Yellow River suffered from dry season for 7 consecutive years, the average annual runoff decreased by 22.7% and dropped to the lowest point in history in Q1 2007, the source was cutoff for the first time; the water level in the source of Lake Eling and Zaling dropped by nearly 2m, which led to the disconnection between two lakes.

7) Soil erosion, sandification and desertification

Sangjiangyuan region is one of the most serious soil erosion, water erosion and freeze-thaw areas in the country, the affected area has reached $1075\times104hm^2$, accounting for 34% of the total area, and the extreme, very severe and moderate erosion area has reached $659\times104hm2$. Affected by climate change and human economic activity, 50-60% of grassland in this area are in different degrees of degradation. "Black Soil Beach" area has reached $280\times10^4 hm^2$, accounting

for 7% of available grassland area, accounting for 80% of the province's "black soil beach" area; sandification area has also reached 253 ×104hm^2, expanding with 5200 hm^2 per year ; average desertification rate increased from 3.9% in 1970-1980s to 20% in 1980-1990s. Ecological landscape got fragmented, vegetation succession was in converse from alpine meadow to degraded alpine meadow to Black Soil Beach.

6 Vision of landscape management

6.1 vision and goals

This programme focuses on ecological civilization. On the premise of ecological protection, based on economic development, and with improving people' wellbeing as the core, this program is intended to build up the experimental demonstration zone, which combines the protection mechanism of alpine-cold ecological system and capacity building, to achieve the win-win effect that benefits both the landscape conservation and the local livelihood development.

6.2 The expected results and indicators

1) Ecosystem service maintained and improved, land degradation reduced

- hectares and types of conserved and restored ecosystem
- number and hectares of increased community conserved areas
- hectares of land under sustainable management
- number of people who participate in landscape restoration and management (gender disaggregated)

2) Livelihood diversified and household income increased

- Number of household who participate in scientific and technological demonstration and forage planting and hectares of demonstration site
- Types of alternative livelihood developed
- Amount of household income increased

3) Landscape governance system and mechanism involving multi-stakeholders created and strengthened; network of CBOs developed and community self-governance capacity enhanced

- Types and numbers of stakeholders who participate in creating and strengthening landscape governance system and mechanism (gender, race and age disaggregated)
- Number of NGOs and CBOs that participate in land use planning and management at landscape level

4) Knowledge management at landscape level strengthened

- Number of case studies and best practices recorded and disseminated
- Number of knowledge products that contribute to SGP global digital library

6.3 Types of potential supporting programmes

1) Plants recovery programmes as returning grazing lands to pasture, returning farmlands to forests, returning cultivated lands to pasture, forestation in barren mountains, and restoration of deteriorated grasslands.
2) Growing Chinese medical materials, growing wild economic animals, processing wild vegetables, fishery culture
3) Artificial grass planting to reduce the livestock pressure on grassland
4) Development of alternative livelihood based on local culture such as eco-tourism, ethnic minority handicraft and special agricultural products etc.
5) Establishment of market link for local products
6) The banning fishing programme, preservation programmes of deteriorated wetlands, returning grazing to wetland, which serve to restore the water saving function of alpine-cold wetlands.
7) The construction of community coordinative system to protect the habitats and migrating routes of wildlife.
8) Promotion of alternative energy and energy-saving facilities
9) Establishment of ICCAs for biodiversity conservation and sustainable use of natural resources.

5. Conclusion (Reasons of selection)

a) Synergic elements of landscape election

Sanjiangyuan region is the headstream of the Yangtze River, the Yellow River and the Lancang River. It is an important water conservation area in China, and is also the sensitive place and significant initiative region for global climate change. Its unique location, rich natural resources and irreplaceable ecological functions make it an important part of the Qinghai-Tibetan Plateau, the ecological security screen for our country. Meanwhile, Sanjiangyuan region is the region of the highest intensity of biodiversity. It has a unique and diversified alpine-cold ecological system and has protected lots of rare species.

7.2 Status of ecosystem conservation and natural resources utilization

The ecological environment of Sanjiangyuan region is fragile. It is experiencing a severe deterioration of environment as a result of climate warming intensification, and human activities such as the expansion of livestock and farm production, mining and hunting in the last three decades. In Jan. of 2003, the Sanjiangyuan National Nature Reserve was established. The state council initiated the protection and construction of Sanjiangyuan natural reserve in 2005. In 2011, it approved the establishment of Sanjiangyuan national experimental demonstration region

of ecological conservation, which laid the macro foundation of the alpine-cold ecological system conservation. In 2013, Qinghai province started to implement the Digitalization of Sanjiangyuan Nature Reserve programme to strengthen the protected area's ecological environmental monitoring and scientific management. In Dec. 2015, the Leading Group of Comprehensive Deepening Reform of central government approved the 'Sanjiangyuan National Park System Pilot Plan' to initiate the management system experiment of Sanjiangyuan National Park.

7.3 Connections and interactions of major stakeholders

The Tibetan people makes up the largest population of Sanjiangyuan region, which leads to the uniqueness of cultural environment here. In this region, Tibetan Buddhism has a wide influence. In addition, problems such as ecological migration and conflicts between human and animals occurred in the conservation practice. All these factors make it of great necessity to explore community co -management model on nature conservation. In recent decade, Sanjiangyuan region not only draws attention from the central government and Qinghai provincial government, its strategic resources and environmental values also attract the scientific community and the public. Numerous environment NGOs come into Sanjiangyuan and conducted many activities such as alternative energy development, monitoring and conservation of endangered species, domestic waste management, and community alternative livelihood development etc. The national and local media also pay attention on the ecological environment values, threats and dynamics of Sanjiangyuan. All of these make Sanjiangyuan one of the most significant hotspots of ecological and environmental protection in China.

III. Baseline Information Assessment Report on the coastal landscape of The Beibu Gulf

1. Name of the Landscape: Tropical Coastline landscape of the Beibu Gulf

2. Geographical location of the project area

The Beibu Gulf is located in the northwest part of the South China Sea (17 °00'- 21 °45'N, 105 ° 40'-110). It is a natural, semi-closed shallow gulf between China's Leizhou Peninsula, Guangxi Province and Vietnam. The Beibu Gulf lays all on the continental shelf with an east-west width of no more than 200 nautical miles and a north-south width of 260 nautical miles. The average depth of the water is 38m but the deepest point can reach 106m. With a joint of the Nanliu River and Red River into the gulf, the water covers an area of 12.8 $\times 10^4$ km2. The major ports in China are Zhanjiang Port, Fangcheng port, Qinzhou Port and Beihai Port, and in Vietnam are port of Ben Thuy and Haiphong port.

The Beibu Gulf in the territory of China consists of Beihai city, Qinzhou city, and Fangchenggang city in Guangxi Province, Zhanjiang City in Guangdong Province and Danzhou City in Hainan Province, a total of 9 districts, 8 counties, 4 county-level cities including 243 townships, 859 communities and 3166 administrative villages.

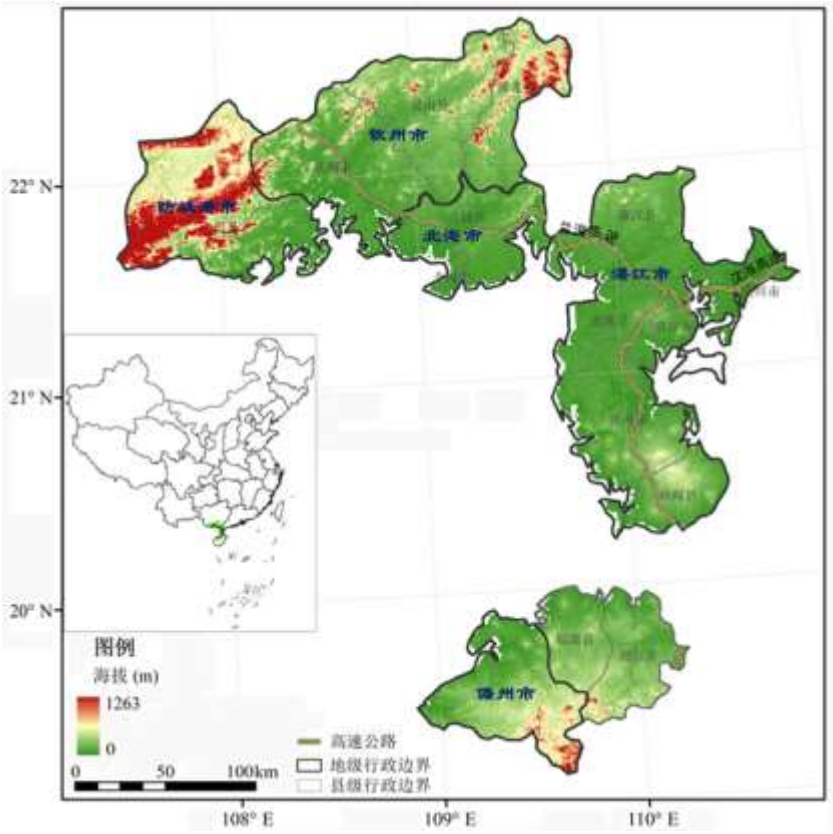


Figure 1. The geographic location of Beibu Gulf

3. Natural environment in the project area

3.1 Climate

The Beibu Gulf is near the tropical area so it bears the characters of the north tropical monsoon climate. The average annual temperature is around 21.1 ~ 21.8 ℃, the extreme high temperature reaches 39.1 ℃, and the lowest temperature can be -1.9 ℃. The average temperature of the coldest month (January) is about 12.5 ~ 13.1 ℃, the average temperature in the hottest month (July) is 28.0 ~ 28.2 ℃, ≥0 ℃. The accumulated temperature could be about 7700 ~ 7900 ℃. The average annual precipitation is around 2000 ~ 2700mm. Northeast monsoon is prevailing from October to March while southwest monsoon occurs from April to middle September. The water temperature of the gulf is below 22 ℃ in winter due to the effect of the cold air from the continent, and the sea surface temperature is about 20 ℃. In summer, the water temperature exceeds 28 ℃ and the sea surface temperatures can reach as high as 30 ℃ due to the wind from the tropical ocean. The area is often hit by typhoons, which go through here about five times every year. The west coastal zone of the gulf gets more rainfalls than the east due to the topography of the area. Therefore, the Shiwan Mountain has more windward slope than leeward slope. There are more coastal zones and less islands and hilly areas. The gulf area has a rainy and two dry areas. Rainy area is located in the western part of the coast, namely the south side of the Shiwan Mountain from Dongxing to Qinzhou area. This is also the wettest place in Guangxi with an annual average rainfall of 2150 mm or more. Two dry areas are Shangsi on the leeward side of the Shiwan Mountain and the Weizhou Island in the Beibu Gulf. Rainfalls can only reach 1216. 3 mm and 1376. 3 mm respectively.

3.2 Topographical Features

The Beibu Gulf is located on the second tectonic uplift in China. The tectonic line goes from northeast to southwest. The Gulf Coast consists of Silurian, Jurassic, Cretaceous and Quaternary strata, among which the Silurian stratum is the most well-structured and widely spread formation. The underlying structure surrounding the gulf has experienced a long and complex evolution process. The seafloor topography shows higher terrain near the coastal zones and the floor gradually declines from the top of the gulf to the bottom. The seabed is relatively flat with an amount of deposition of sediment from the land. The coastal zone overall is higher on the north and lower on the south. The mountains go from northeast to southwest so the mountain is steeper. The average elevation of the mountains in northwest and northeast are about 1000m and 800m respectively. Hilly land lies between the mountains.

3.3 Soil Type

The hilly area of the gulf mainly contains red soil developed from the basalt. The soil is very deep and clayish in texture, but it is highly organic and fertile. The red soil is mainly in the layer below the elevation of below 600m where the purple soil formed from the weathered purple rock is also scattered. Mountain red soil is distributed between 600 ~ 800m and the mountain yellow soil is distributed around 800 m above. There is a small amount of coppice meadow soil on the top of the hill. Near the coast, it contains the saline swamp soil. The soil formed from the coastal sediments. Due to long-term flooding of the sea water, the surface of the soil is marshy and has high concentration of salt. There is no significant structure because the soil is a slough. The soil shows slow mineralization of the organic matter and high soil C / N value.

3.4 Vegetation type and distribution

The coastal vegetation in Guangxi, Guangdong and Hainan provinces are north tropical monsoon forests and humid rainforest. The terrestrial ecosystem is diverse. Semi-evergreen tropical monsoon forest occupies the original habitat. The valley rain forest developed in the southeast area of the hills, but northwest leeward slope became a piece of savanna due to the effect of foehn. There are mountain rainforest above the altitude of 600m of the Shiwan Mountain. The montane evergreen broadleaf forest, montane elfin forest and shrub are distributed above the altitude of 1000m. Because of the strong interference of human activities and extensive reforestation, the most widely distributed at the low altitude between the mountain and coastal steps are: 1) Eucalyptus plantations; 2) Pinus Kwangtungensis and pinus fenzeliana as the dominant species of the tropical coniferous forest; 3) shrub (such as myrtle shrub), bamboo forest, secondary forest, and a variety of tropical crops.

Mangroves, coral reefs and seagrass beds are the three typical coastal ecosystems. The coastal mangroves are widely distributed in Beibu Gulf as it is one of the three major distribution areas of mangroves in China. Along the coast from the Beilun port in the west to the Anpu port in the east, mangrove distribution covers a total area of 7172 km2, among which the distribution in the territory of China is 6331 km2 with good shape. Distribution areas that exceed 700 km2 are Beilun port area, the Pearl Harbor area, Maoweihai of Qinzhou port, Tieshangang and Dandouhai of Yingluo ports. The best quality and widest distribution of mangroves can be found in Dandouhai of Yingluo port, the Pearl Harbor area and Beilun estuary area while the smallest area of mangroves is in Bailong port area of Beihai. There are about 12 kinds of mangrove coenotypes

including avicennia marina community, aegiceras corniculaturn community, Kandelia candel community and acanthus community. The largest community is acanthus.
Seagrass beds are mainly located in the waters around Hainan Island. The dominant species of sea grasses are thalassia testudinum and enhalus. Due to serious artificial habitat destruction, there are no seagrass beds distributed in a large extent in the waters around the gulf. Coral reef is another major marine ecosystem. In the gulf area, the surrounding coral reefs are mainly distributed around Weizhou Island with good condition currently. There is no large coral reef distribution along the continent coast of Beibu Gulf due to pollution and destruction of projects.

3.5 Flora and Fauna Resource

The species in the gulf area are diverse and the types of ecosystem vary. The area has an important terrestrial ecological barrier in the southwest region of China and an important marine ecological barrier of the southern tip of China. It is one of the hotspots of biodiversity conservation in China. The terrestrial flora of this area is divided into the ancient tropical flora- Malaysia Flora subregion-the Beibu Gulf region and Hainan Island flora. Taking the example of Shiwan Mountain of Guangxi which is located in the heart of onshore area, there are 219 families 912 genera 2,233 species of vascular plants (including varieties, subspecies and variants), among which 30 families, 76 genera and 150 species are ferns, 8 families 9 genera and 16 species are gymnosperms, and 181 families, 827 genera and 2067 species are angiosperms. The basic characteristics of the flora are:

1) Flora has ancient origin and it contains many rare and endangered plants. There are 15 kinds of national key protected wild plants, including two kinds of grade Ⅰ key protected plants and 13 kinds of grade Ⅱ key protected plants. The genus of single species and depauperate species genera are abundant.
2) Floristic endemism is strong. There are 1 endemic family, 9 endemic genera and about 163 endemic seed plants in China.
3) Flora is typical tropical marginal, tropical and temperate genera ratio (R / T) is 4.56.
4) Woody plants are in dominance (accounted for 47.5%), liana accounts for a larger proportion of (13.6 %), and rain forest landscape is prominent.

Common mammals are wild boar, Chinese Hare, fruit bats, masked civets, squirrels and others. There are also some rare animals, such as pangolin, civet, large Indian civet, leopard cat, small Asian Mongoose, crab-eating mongoose and the like.

The marine environment of Beibu Gulf is superior with rich fish resources and serves as the major marine fishery of Guangdong, Guangxi and Hainan provinces. According to an incomplete statistics, there are 329 kinds of swimming organisms, including 244 kinds of fish, 104 kinds of economical fish, and 140 kinds of other fish. There are 64 kinds of Crustaceans, including 40 kinds of shrimp, 9 kinds of mantis shrimp class, and 31 kinds of crabs. There are also 21 kinds of cephalopods, including 9 kinds of Teuthoidea, 8 kinds of Sepioidea, 4 kinds of Octopoda. Most fish in the gulf area is of tropical and subtropical coastal fish. The fish fauna is unique, and most fish basically migrates in the gulf.

The gulf is located in the East Asia – Australasia bird migration flyway. It is an important stopover and wintering place for migratory birds, so it is so rich in bird species. So far there are 364 species of birds recorded, including 267 species of migratory birds which are accounted for 73 % of the total number of species of birds in the area mainly including thrush, small skylark, light-vented

bulbul, Grey Treepie, black drongo, Thick-billed green pigeon, Orange abdominal green dove, Spotted Dove, Slaty-backed Forktail, Black-Throated Laughingthrush, rufous-capped babbler, Nepal Fulvetta, white-rumped Munia, Scaly-Breasted Munia, partridge , Lanius schach, Coucal, Tawny-flanked Prinia, yellow-bellied Prinia and the like.

The survey on coral reefs, seagrass beds and coastal wetlands showed that there are 3 orders 14 families and 38 species of Sea anthozoan in Weizhou Island and Xieyang Island. Four genera of Halophila, Enhalus acoroides, Thalassia testudinum and Halodule are distributed from the gulf to waters of Hainan Island.

3.6 Environmental Pollution and Natural Disasters

1) Increased pollutants into the gulf and intensified marine pollution

There is a significant increase in the amount of pollutants into the gulf from Nanliu River, Qinjiang River, Fangcheng River and other rivers. According to the China Marine Environment Statement 2007 - 2012, , the amount of COD, oil, heavy metals and arsenic pollutants into the gulf from Nanliu River during this period had a clear upward trend. The amount of COD from Qinjiang River and Fangcheng River into the gulf is rising as well. Taking example of Qinjiang River, the amount of pollutants into the gulf reached 13,644.82 tons in 2008.

2) Coastal Erosion, siltation and shoreline change

The gulf shoreline monitoring from 1991-2010 shows that, due to the effect of port construction, coastal urban construction, land reclamation and other factors, some coast beach is found clear silting. For example, the average siltation of the coastline of Qinzhou harbor to the sea is 2752.5m and the siltation area reached 10.76km2, which caused shoreline flattening and even a muddy coast became an artificial coast. On the other hand, coastal erosion is severe due to the changes in sea levels, typhoons, storm surges and other global change effects. The length of continental shoreline erosion in Guangxi is 219.77km, accounting for 13.49 % of the mainland coastline. The erosion rate reaches 10.4m / years in Silver Beach, Beihai.

3) Red tide increasing

Mainly due to overproof emissions of contaminant into the gulf from rivers and coastal areas, water eutrophication caused the increasing frequency of red tides. From 1995 to 2011, large-scale red tides occur 12 times in the northern part of the gulf, in which between 1995 and 1999, the red tides occurred twice in the northern bay of the gulf and the affected areas are less than $10km^2$; from 2000 to 2005, the red tides occurred five times, among which the affected areas reached 20km2 and 40km2 twice. Between 2006 and 2011, the red tides occurred 5 times in which the 2010 red tide area had reached 150km2.

4) Climate warming leads to increased frequency of extreme weather events, typhoons and storm surges

The main threats caused by global warming in Beibu Gulf area are the increased frequency and intensity of tropical oceanic cyclones, resulting in a significant increase in severe weather and secondary marine disasters. Since records began in 1949, the frequency of typhoons hitting the gulf area is on the rise. 1994 to1995 and 2001 to 2013 are the years that typhoon hits for more than five times a year, while in 2013 typhoon occurred 10 times which reached the peak of the frequency in a century. Accordingly, between 1900 and 2012, the storm surge occurred 24 times in total, but

only from 2010 to 2012, it occurred five times; from 2000 to 2009, it occurred 11 times; from 1990 to 1999, there were 3 times, and from1900 to 1989, there were only 5 times.

4. Demographics in the project area

4.1 Human resources (including population density, ethnic population, education, age and gender)

The sixth census data in 2010 showed that the permanent resident population of the Beibu Gulf Economic Zone was 12.1446 million. The population density was 286 people / km^2. There are Zhuang, Yao, Jing, Li, Hui and other ethnic minorities in the gulf area and that combines a population of about 6.5 million, accounting for over 50 % of the total population. The vast majority of the ethnic minority population is Zhuang.

Table 1 the Beibu Gulf demographic resources condition (2010 sixth national census data)

Demographic indicators	**Beihai city**	**Qinzhou city**	**Fangchen gang city**	**Zhanjiang city**	**Danzhou city**
Population Density (**people**/km^2)	461.3	349.6	140.3	598.1	274.2
Minority Population Ratio (%)	1.94	10.56	44.0	0.50	8.05
The Average Population (**person**/household)	3.60	3.63	3.66	3.83	4.19
Male/Female Sex Ratio (%)	108.46	113.66	121.98	109.07	112.98
Education: Illiteracy Rate (%)	2.69	2.26	2.94	3.52	8.31
Primary School Rate (%)	27.12	41.87	31.25	30.89	33.07
Secondary School Rate (%)	62.25	51.39	59.03	60.41	53.05
University Rate (%)	7.94	4.16	6.40	5.19	5.58
Senior(>65 **years old**) **Youth** (0~14**years old**)**Population** (%)	9.14+20.19	8.95+28.42	8.04+21.74	8.92+23.46	7.07+24.07
City: Rural Population(%)	52.0	43.6	46.0	38.5	48.4

The population density of the area in four cities is quite different. The population density of Zhanjiang and Beihai City is much higher than that of Danzhou and Fangchenggang City. There are about 44 kinds of local ethnic minorities, but they are mostly scattered. Therefore, except for Danzhou city, the proportion of minority population is small elsewhere. It is less than 8.5%. which is the national average. The population structure is relatively young, the average proportion of elderly population is more than 7% but less than 8.9%, the national average.The male and female population proportion is high. Fangchenggang City is up to 121.98%. The level of education is relatively developed with an illiteracy rate of less than 4.1%, the national average. However, the illiteracy rate is relatively high in Danzhou city. The development of urbanization is rapid. The urban and rural population ratio close to 1: 1. Among them, Fangchenggang City has jurisdiction over 2 Districts, 1 county and one city. It has the lowest population density. There are Han, Zhuang, Yao, Jing and other 21 ethnic groups. The Jing ethnics only live on the Jing Isles in JiangPing town, Dongxing city. Yet, the proportion of minority population is the lowest and the sex ratio is imbalanced. Beihai city has three municipal districts, 1 county and two islands. Its population density is second only to that of Zhanjiang. There are Zhuang, Yao, Miao, Dong and other 43 kinds of minorities. The female –male ratio is the smallest. It has the lowest rate of illiteracy. The urban and rural population proportion is the largest and the city has the aging population trend. Zhanjiang City has the jurisdiction of 5 districts, 3 county-level cities, 2 counties and several islands. The population density is the highest and the education level is low. The proportion of university student population and the urban and rural population are the smallest. Danzhou City administers 17 towns with ethnic minorities proportion accounted for the highest. The elderly population proportion is the smallest. The city has the most number of population per household. The proportions of men and women are imbalanced and the illiteracy rate is much higher than that of other cities.

Table 2. The economic data in three provinces (regions) five cities of the Beibu Gulf in 2012

Economic Indicators	**Beihai city**	**Qinzhou city**	**Fangcheng gang city**	**Zhanjiang city**	**Danzhou city**
GDP (0.1 billion)	630.8	724.48	457.53	1900.64	176.78
Per Capita GDP (ten thousand)	4.041	2.321	5.183	2.681	1.896
Primary: secondary: tertiary Industry Ratio	3.8:85.4:10.8	23.2:45.4:31.4	13.5:53.2:33.3	20.3:42.2:37.5	51.2:14.5:34.3
GDP Growth Rate (%)	21.8	12	12.5	10.0	9.8
Urban Residents' Net Income (Yuan)	21202	21600	22203	20227	19544

Rural Net Income (Yuan)	7227	7140	7539	9561	7763
The Primary Industry Growth Rate (%)	4.4	6.8	5.6	6.6	6.9
The secondary Industry Growth Rate (%)	39.9	15.5	17.9	13.0	10.3
The tertiary Industry Growth Rate (%)	6.9	10.3	7.2	8.4	14.4

4.2 Socio-economic condition (including the economic level / industrial structure / income sources of inhabitants, livelihood activities)

Among five cities in three provinces of the gulf region, the scale of GDP of Zhanjiang , Qinzhou , Beihai , Fangchenggang and Danzhou were close to 10.8 : 4.1 : 3.6 : 2.6 : 1. Regarding the economic scale, Zhanjiang has the largest one while Danzhou has the smallest one (Table 2). However, the per capita economic levels of Fangchenggang and Beihai City were about double of those in other cities, which shows that economic level in this region was very uneven. This gap was also reflected in the relative size of the primary, secondary and tertiary industries in each city where Fangchenggang, Qinzhou, Beihai and Zhanjiang showed "2-3-1" size order. In particular, the secondary industry proportion of Beihai City was high up to 85.42%. In Zhanjiang City, the scale of secondary and tertiary industry are much the same. Only in Danzhou city, the primary industry was dominant in 2012 and it was a typical agriculture city. 2012 statistics showed that the economic growth of the entire region were up to 10%, which was higher than the national average level. The growth rate of Beihai reached 21.8% and was particularly prominent. Overall, the disposable income of the urban residents and the rural income were similar in four cities. However, the gap between income of urban and rural within each city was big. The ratio was about 3: 1.

Generally, the economic development is not balanced in this region as the gulf area is across Guanghdong, Hainan and Guangxi provinces, the main industries vary as well. In particular, in Danzhou city of Hainan province, the proportion of primary industry is over 50%. The main cash crops are sugar cane, vegetables, fruits, rubber and grains. For Qinzhou and Fangchenggang in Guangxi and Zhanjiang in western Guangdong province, agriculture still accounts for large proportion. Farming industry mainly contains grain crops and the rest are oil crops, cash crops, fruits and vegetables. Animal husbandry cultivates common livestock species. Beihai City fully developed in the past 30 years with strong petrochemical, real estate and tourism industries. The speed of primary industry development is very slow.

4.3 Culture (such as tourism resources, traditional festivals, intangible cultural heritage etc.)

The Beibu Gulf Economic Zone in Guangxi has beautiful coastal scenery and is rich in tourism resources. The main tourist resources are seaside, scenery, cultural landscape, and historic sites.

As a multi-ethnic area, the distinctive ethnic culture is also a unique tourism resource such as Zhuang's costumes and drums, Dong's drum tower houses and shelter bridge, Jing's single string instrument, costumes, dance and music, and Miao's colorful wax printing, embroidery, reed-pipe wind instrument (Lusheng) and music etc..

1) Architectural culture:

Adapted to the southern hot and rainy climate, the traditional residence of ethnic minorities is mostly 'pile dwelling'. The Zhuang's houses include watchtowers and terrace etc.. The Yao's 'pile dwelling' is mostly wood structure. The Jing's traditional 'fence house' keeps the features of "Ha Pavilion". The Li's traditional houses are mostly built with wood, bamboo, couch grass, Sargentgloryvine and rattan and other materials. The buildings show rich local ethnic characteristics.

2) Food Culture :

The minorities in the Beibu Gulf Economic Zone have various traditional food culture such as Zhuang's bamboo rice, lettuce wrap with rice, colored glutinous rice etc.; Yao's 'eggshell rice', glutinous rice wine; Jing's catfish juice; Li's bamboo rice, banana leaf rice, 'tricolor rice', sweet potato rice and Shanlan rice wine. They are unique in style.

3) Dress culture:

For the traditional dress, Zhuang's solid color embroidered shoes with sharp throat and high toe spring for men, women's "Niu'er shoes" and unisex wooden shoes are considerable ethnic and full of local characteristics. Jing's dress has its unique beauty. The top is a double-breasted collarless jacket and the bottom is a pair of loose fitting black or brown pants. Yao's clothing is very colorful. Men wear double-breasted or left-breasted jacket and women wear earrings, bracelets, silver and other accessories. They wear a short collarless top with multi-colored ribbons and a skirt or pants with colored leggings. The Li inherited the family's ancestral traditions. They had tattoo practices in the past. Li men and women's traditional costumes are made from home-made fabric.

4) Cultural Festival:

Double Third Day is Zhuang's traditional singing festival. It has various activities such as setting up colorful tents and singing stage, embroidered ball throwing, egg-cracking contest, mate selection and fireworks letting off. Jing's "Ha Festival" is one of the most magnificent and popular festivals of the year for them. Ha Festival is a three-day Singing Festival. They entertain both human and deity, all night long. They hold meeting the deity, ancestor worship and singing activities. The Yao worships "Pan Wang" as their ethnic ancestor. Pan Wang Festival is Yao's traditional festival. The Li in Hainan also puts March 3 of the lunar calendar as their traditional festival. They celebrate the holiday with activities such as antiphonal singing, playing on the swings, playing dingdong, blowing the nose flute, powder gun shooting and crossbow archery.

5) Folk arts and crafts:

In terms of crafts, Zhuang, Yao and other ethnic groups have coloured ribbons, brocade, embroidery, wood carving, stone carving etc.. They are unique in techniques and have a long history. Zhuang brocade is hailed as one of the four famous Chinese brocades which is the only one from ethnic minorities. Li's women are particularly good at making kapok fabric. Nose flute, mouth bow, water flute and others are Li's favorite ancient musical instruments. They are made

with white bamboo from Wuzhi area. Jing's traditional instrument – single-string instrument will also be developed as an ethnic handcrafts.

6) Song and Dance :

Songs and dances in Beibu Gulf rim also have distinctive ethnic characteristics such as Zhuang's 'board shoes dance', 'singing festival'. Jing's 'Opera Ha', 'Bamboo Dance' and single-string instrument are known as the three pearls of Jing culture. Yao's folk songs, drum dance, Li's 'Bamboo Dance', 'rice thrash dance" and 'Tsien fluid double dance' and so on are all listed as well.

5. Landscape description

5.1 Landscape structure, dynamics, matrix background, plaques and corridor

Typical landscape of the coastal zone covers from the hills on the land to the mangrove forest by the beach with a transition to the landscape gradient composing of the seagrass beds in the shallow water and coral reefs. The surrounding terrain are transformed from mountains to coast platforms to form a landscape appearance of artificial vegetation and buildings such as agricultural land, plantations (mainly eucalyptus forest) , urban and rural construction, road ditches, secondary coniferous forest and bushwood uncultivated land. The structure is fragmented. Urban and rural areas constitute two very different landscape in matrix and structures respectively. The former includes five prefecture-level cities such as Beihai, as well as residential areas at counties and townships.

There are steep terrain, narrow beach, and rapid transition zone of underwater habitats in the area, where mountains extend to the waterfront. The water quality is generally good and shoreline is relatively stable or erosive. Part of the coast with good traffic conditions was transformed into harbor. In each river estuary, due to the heavy deposition, the slopes get gentle and form a wide beach which is composed of a variety of aquaculture ponds. The mangrove vegetation occupies the rest of the area outside the aquaculture ponds into pieces. Mangrove is largely distributed around the estuaries of Beilun River, Nanliu River, Qinjiang River, Fangcheng River and other rivers.

Various roads, dikes and drainage ditches formed artificial corridors in the coastal zone for the convenience of reaching to the beach for activities. Rivers and tidal creek are natural path for tides and land runoff to cross over the landscape.

1. Mangrove

2. Dugongs

3. Coral Reefs

4. Fishing Boat coming home

5. Wetland waterfowl

5.2 Characteristics of land utilization (style, proportion, the strength of the status quo and its historical changes)

Woodland and arable land are the main land use types in the gulf area. The proportion is about 63.8%. Gardens, construction lands and waters occupied a relatively small area. But 22.7% of lands are undeveloped which indicates that there are still more land resources to be developed and used. The land between high and low tide becomes relatively firm by the siltation and deposition. Due to the economic development, mainly the expansion of aquaculture ponds in the past 20 years, the suitable habitat for native mangroves vegetation has been encroached.

With the process of urbanization, the restructuring of economy and agriculture, the use of land resources which serve as a carrier of life also has been changed. According to the analysis of land-use types and quantitative structure changes, during the past 20 years, farmland , forestland and unused land are overall in the downward trend. Arable land decreased from 1,057,448.35 hectares in 1990 to 1,038,571.18 hectares. It reduced 18,877.17 hectares mainly for building construction, agricultural structure adjustment for gardens and economic forests. Forest land reduced 30,862.49 hectares and unused land reduced 123,008.64 hectares. However, gardens, construction land and water areas are in an increasing trend in this period. The largest increase among them is gardens, which indicates the rapid development of orchards and tea plantation. Changes in water area are mainly caused by the impact of precipitation.

5.3 The main threats facing the landscape

The gulf coast tropical landscape consists of mangroves and coral reefs. The area are rich in biodiversity because it is located in the transition zone of land and water, but it also has high ecological vulnerability. It is vulnerable to climate change and human interference, which makes the gulf coast tropical landscape now face the following threats:

1) Artificialization of coast landscape and the fragmentation and decline of natural habitat

As urban sprawl , construction of harbor, road and sea dyke, plantation and artificial aquaculture, coastal natural landscape of the gulf has gone through severe loss. Sea dyke and road construction have cut off the connection of water and materials between the land and beach. Port construction cause hardening and flattening of shoreline. Fish, shrimp and crab aquaculture ponds encroached natural habitats in the coastal wetland. Especially in recent years, due to large-scale planting of commercial eucalyptus forest in the gulf area, the eucalyptus forest area is up to 90,000 hectares in the 5km range of GuangXi coastal zone. It is about 41% of the entire coastal vegetation area which is twice of the coastal native vegetation. It is resulted in the disappearance and fragmentation of a large number of coastal natural vegetation, including some endangered species.

2) Sea water pollution and frequent red tides

Industrial pollution, including ship oil spill, municipal sewage as well as wastewater discharged from a large area of artificial aquaculture, has brought serious pollution problems to water quality of the gulf area. This is one of the main causes that increased the frequency of the occurrence of red tides.

3) Typical marine ecosystems and coastal wetland habitat reduction

Due to the coastal industrial, agricultural and tourism development along with the coastal economic zone development, land reclamation , industrial and agricultural pollution emissions, littering of the tourists and other problems have reduced the habitat area of mangroves, coral reefs , seagrass beds and salt marshes. The ecology was weakened: ① From 1949 to 2008, the annual average declining rate of natural mangrove was 0.55%. From 2001 to 2008, due to the implementation of artificial mangrove forests plantation, the total area of mangrove has recovered, but natural mangrove declining rate still reached 0.50%. ② As a main seagrass distribution area in Guangxi, the area of Hepu seagrass bed in 1980 was 2970 km2, but drastically reduced to 98.42% in 2001. From 2001 to 2008 seagrass area has increased to some extent. ③ Salt marsh vegetation has been widely distributed in Guangxi coastal zone. MaoWeiHai and Nanliu estuary in Qinzhou have the largest and densest areas. Now the area is reduced to 253km^2, and has become significantly fragmented and is distributed in small pieces. Compared with the initial estimate in the 1950s, there is a loss of 73% of mangrove area and coral reef area decreased by about 80%. The remaining 50% of coral reef ecosystems are in a unhealthy status.

4) Biodiversity decline

Because of the habitat destruction, overfishing and the introduction of alien species (such as eucalyptus and vannamei), the amount of marine and coastal species resources reduced, and some even became endangered. Biodiversity declined sharply. Survey estimates suggest: the natural population of 14 important or common marine animal species, such as dugongs, amphioxus, bostrichthys sinensis, mullet, penaeus penicillatus, banana prawn, pinctada martensii, Crassostrea, Sipunculus nudus, Phascoloma esculenta, Gracilaria and staghorn coral have experienced severe decline. Resources fell by an average of 91.63%. Dugongs seem to extinct (99.67% decline in resources) and wild pinctada martensii are about to extinct (98.33% decline in resources).

5) Mangroves insect pest outbreaks

Since the degradation of mangrove wetland ecosystem and climate change, mangrove repeatedly experienced the pest outbreaks. It is resulted in the withering of a large area of mangroves. In May

2004, Oligochroa cantonella outbroke in the Shankou National Mangrove Reserve in Guangzhou. The affected area of A.marina forest reached 700 hectares in total. In 2006, the mangroves in Qinzhou coastal areas, especially in the MaoWeiHai Mangrove Reserve were infected by Chalioides kondonis Matsumura. The average density was over 100 / plant. The local forestry bureau picked up 206kg of Chalioides kondonis Matsumura. In mid-September of 2015, there was a pest Hyblaea puera outbreak in Beilun Estuary National Nature Reserve and Shankou National mangroves reserve. The affected area reached 1325 Mu and 924 Mu.

6. Vision of Landscape Management

6.1 Visions and goals

We will explore an ecological conservation and landscape sustainable development strategy under the coastal economic development; seek to balance the resource development, economic development and ecological conservation by improving the community income and effectively protecting valuable coastal wetland ecosystems.

6.2 Expected results and indicators

1) maintaining and improving the coastal ecosystem service; conserving coastal non-commercial forests, mangroves, marine species and birds including economic fish

- Hectares of conserved and restored mangroves, seagrass beds, coral reefs and coastal wetlands
- Number of people who participate in seascape conservation and restoration (gender disagrregation) Species and number of protected marine species and birds

2) land-based pollution controlled effectively through the participation of CSOs and local communities

- Number and coverage area of river basins, estuaries and land-based pollution sources outfall into the sea under pollution monitoring
- Quantity of reduced sewage from industry, farming and domestic life
- Number of waste treatment facilities increased and quantity of reduced waste

3) increase community income through sustainable livelihood development

- Types of sustainable livelihood developed
- Number of people and communities covered by technology models of sustainable livelihood
- Amount of community income increased through sustainable livelihood
- Number of community cooperative network and coalition established to achieve large scale sustainable livelihood

6.3 potential projects to be supported

1) project on traditional livelihoods development and sustainable use of marine fish resources based on the local culture (such as Jing ethnic minority), especially the conservation and rejuvenation of rare commercial fish resources;
2) project that combines mangroves conservation and birds monitoring at coastal wetland (including mangrove replantation and pest prevention and control);

3) project that promote mangrove-eco-aquaculture integrated system and enhance effectiveness of aquaculture at coastal communities;
4) project on ICCAs establishment for conservation of critically endangered rare tree species, fish species and seagrass beds and establishment of conservation coalition for local fengshui forest;
5) project on coastal sewage discharge and water quality monitoring and assessment, and cooperation mechanism between community and government on sewage management;
6) project on island eco-tourism development such as sustainable coral reef tourism based on coral reef resource assessment and tourism planning to replace the current model of direct exploitation of coral reef for products;
7) project that combine resources conservation and sustainable fisheries, develop and apply ecological agriculture;
8) project that develop sustainable alternative livelihoods and optimize landscape planning and design, as well as establish community protection union for natural forest protection, restoration of the abandoned habitats of degraded eucalyptus forests to deal with the excessive promotion of commercial planting of eucalyptus
9) project that create integrated management mechanisms for models of sustainable water environment and landscape optimization and models and scientific and technical applications of coastal aquaculture

7. Conclusion (reasons of selection)

7.1 Synergic elements of landscape election

The Southwest region in Guangxi is a tropical biodiversity hotspot in China. The Beibu Gulf is one of the three distribution areas of mangrove. It is a path for East Asia - Australia migratory birds and an important bird habitat. There are abundant ecosystem types, species resources. It is one of the most biologically diverse "Bay Areas" in China. Therefore, with the tropical coast, the gulf region has become one of the global biodiversity hotspots identified by CI(Indo-Burma). Meanwhile, the Beibu Gulf is the first important international economic cooperation zone ratified by the country under the jurisdiction of Guangxi Gulf Economic Zone in 2008. The scope of its economic development and ecological protection has been supported by national and regional governments, and the relevant policies and regulations have been set up.

"Guangxi Zhuang Autonomous Region Biodiversity Conservation Strategy and Action Plan " (2013 to 2030) will integrate biodiversity conservation into local economic and social development planning and relevant sectoral planning, and force the implementation into their investment decision-making and performance evaluation. Local Government and relevant authorities of biological diversity have to make the plans of biodiversity conservation. There is also specific provision of ecological protection in the "Guangxi Gulf Economic zone Development Plan". According to Guangxi, " fifteen" plan, the area has to create a mangrove area of 2000 hectares each year. The governmental organizations will mobilize the volunteers to plant mangroves in a suitable location.

7.2 Status of ecosystem conservation and natural resources utilization

1) the protection of ecosystems: the Gulf region has set up a series of nature reserves and ecological monitoring stations for implementation of wetland resources and wildlife conservation and the investigation of invasion of alien species and the threatened status of important wildlife habitat,

biodiversity evaluation and monitoring. According to statistics, the provinces (autonomous region), has a total of 15 nature reserves, mainly to protect mangroves, Guangxi monkeys and a variety of migratory birds and north tropical monsoon rainforest. Shankou Mangroves National Nature Reserve joined the "International Man and Biosphere" network, which is listed in Ramsar sites together with Beilun Estuary Mangrove National Nature Reserve. They established a large sample to carry out eco-location observation in Longgang, Mt. Dayaoshan, Mt. Maoershan, Mulun and other natural reserves and completed resource study and master planning for more than 60 nature reserves. Introduction and cultivation of white-headed langur, alligator lizards, pheasants, silver fir, hemlock south, cycads, orchids and other species have been done. A marine ecological station for monitoring and research of coral reefs ecosystem has been set up at Weizhou Island.

2) utilization of natural resources: there is a variety resources of local terrestrial and marine flora and fauna, but in the past 30 years, with the rapid development of regional economy, the development and utilization of biological resources tends to exceed the limit, including rare plants, birds, fish, mangroves and coral reefs. It makes resources decline significantly, especially the shrinking and deterioration of natural habitats and the fragmentation of the landscape make the ecosystem imbalance and biodiversity decline.

7.3 Connections and interactions of major stakeholders

Currently, ecological conservation of the Gulf has formed joint efforts from different channels. Central and local governments set up functional positioning, space layout, development priorities and delineation of ecological red line based on the "Biodiversity Conservation Strategy and Action Plan " and other government documents. Numerous NGOs have played effective roles in advocacy, education and training, and developing community alternative livelihood. Community residents also actively participate in and monitor the implementation of these plans through legal procedures. In recent years, an endless stream of related actions, including the Beilun estuary mangrove conservation and restoration promoted by Guangxi Mangrove Research Center organizations research center; the Gulf Birds Conservation Network set up FFI(Fauna and Flora International); the protection of rare species Chinese White Dolphin led by "Guangxi Chinese White Dolphin Research Institute" and so on.

Annex 2: OP6 donor partner strategy annexes

Please attach a detailed CPS Annex for specific partnership with donor partners as required (i.e. Australian government-funded SIDS CBA; Community Based REDD+ (CBR+) with UN-REDD; Japanese government supported *Satoyama*-COMDEKS initiative, EU NGO governance programme, and German BMUB Global ICCA Support Initiative).

SGP China is not included into the above mentioned projects. The major potential donors in China are World Bank, Asian Development Bank, UNEP, EU, and governments of some developed countries – Australia, Canada, Denmark, Germany, Italy, Japan, Korea, Netherlands, Norway, Sweden, and UK. SGP will seek the opportunity to build partnership with these international organizations and bilateral agencies. Domestic foundations are growing fast recently. Some also pay attention on environmental issues such as Tencent Public Welfare Foundation, Alibaba Public Welfare Foundation and SEE Foundation etc. The country programme will explore the partnership with them.