



**United Nations Development Programme
Country: China**

PROJECT DOCUMENT

Project Title: Developing and Implementing the National Framework on Access to and Benefit Sharing of Genetic Resources and Associated Traditional Knowledge

Expected CP Outcome(s): Outcome 2: More people enjoy a cleaner, healthier environment as a result of improved environmental protection and sustainable green growth.

Expected CPAP Output (s): Output 2.2: Regulatory and capacity barriers for the sustained and widespread adoption of environmentally sustainable strategy implementation identified and taken up/committed to remove by the Government

Executing Entity: Ministry of Environmental Protection/ Foreign Economic Cooperation Office (FECO)

Implementing Entity: Ministry of Environmental Protection/ Foreign Economic Cooperation Office (FECO)

Responsible Partner: Ministry of Environmental Protection/ Foreign Economic Cooperation Office (FECO) and United Nations and Development Programme (UNDP)

Brief Description

China is a megadiverse country, home to some 10% of all known plant species and 14% of fauna. Of its 34,984 known species of higher plants, 50% are endemic. Some 13,800 species of China's flora and fauna have identified medicinal properties. The country's long agricultural history has produced a rich diversity of agricultural varieties and subspecies, through natural selection and artificial selection. China's population includes multiple ethnic groups in geographically diverse areas, who possess wide-ranging traditional knowledge related to crops, livestock, poultry, fish, traditional medicine, processing techniques, prescriptions and therapies, traditional farming methods and production models, traditional culture, folklore and biological products.

China's biological resources offer huge potential for the development of a national biotechnology industry and for providing sustainable benefits to the country, including the communities that depend on them. However, the traditional means of reaping benefits from biodiversity has been changing internationally. While traditional agricultural practices—including the development and marketing of the products of cultivation, propagation, animal husbandry and wild collection—continue, increasingly modern scientific methods are being used to enable the artificial synthesis of products based on the genetic and biochemical make-up of a particular variety or sub-species. These processes can result in the deterioration of supply chains for agricultural products and wild-collected specimens, by eliminating the user's need to acquire more than a small quantity of samples or to return and resupply more than one or two times. Thus, existing uses increasingly find their products in competition with products developed by synthesizing or otherwise utilizing the genetic or biochemical information from the species.

To address this challenge, international negotiators have developed and adopted a novel concept – “access to resources and equitable sharing of the benefits arising from their utilization” or “ABS” – which requires national implementation by most or all countries, in order to be effective in addressing the human cost of this transition. This new concept was further elucidated through the negotiation the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to The Convention on Biological Diversity through Negotiation. Details of how to operationalize it have not been entirely clarified by international agreement, however. In addition, many countries, including China, have yet to adopt the necessary ABS implementing legislation, nor had any functional experience with the application of ABS within their boundaries.

The long-term solution that this project will pursue is a robust legal and institutional framework for implementing the ABS regime in China, ensuring equitable distribution of benefits arising from the utilization of genetic resources and of the traditional knowledge associated with genetic resources (ATK) to the providers of the genetic resources and to the holders of ATK, as prescribed in the Nagoya Protocol (NP). Such a framework will strengthen economic incentives for conservation and sustainable use of the biological resources that contain the genetic material, while helping to prevent the loss of genetic resources and

associated traditional knowledge.

The following barriers are constraining realization of this long-term solution: (1) a weak enabling framework and institutional set-up for ABS implementation; (2) insufficient stakeholder awareness and capacity to develop and implement national and local ABS norms, and; (3) limited national and sub-national level institutional capacity to regulate, oversee, promote and control bioprospecting and negotiation of viable ABS mechanisms.

The Project's Goal is to create in China the legal, administrative and practical capacity to authorize and enable providers (communities, minorities and individual providers) of genetic resources and associated traditional knowledge to share in the benefits from the utilization of those resources, in a manner that promotes improvement of the providers' social welfare and provides a motivation for conservation and efforts to maintain the sustainability of those resources.. The Project Objective is to develop and implement China's national framework on access to and benefit sharing (ABS) of genetic resources and associated traditional knowledge in accordance with provisions of the Convention on Biological Diversity (CBD) and the NP.

This project aims to remove the above-mentioned barriers and achieve the project objective through the implementation of three inter-connected components. Component 1 addresses the need for national ABS policy decisions and a national regulatory and institutional framework on ABS. Component 2 supports capacity building and awareness raising. Component 3 consists of pilot demonstrations on ABS. The three components will result in the following project outcomes:

Outcome 1: All prerequisites completed to enable accession to the Nagoya Protocol

Outcome 2: National ABS regulatory framework is established and operational

Outcome 3: ABS demonstration legislation ready to be adopted and operating in two or more pilots.

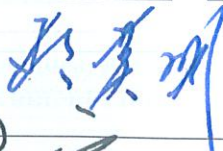
Outcome 4: Overall capacity to implement the National ABS framework improved by at least 20%, as measured by UNDP's Capacity Development Scorecard

Outcome 5: Enhanced awareness and understanding of the ABS regime and the value of genetic resources and traditional knowledge associated with genetic and biological resources for improved policy making and on-the-ground implementation of biodiversity conservation, sustainable use and fair and equitable sharing of benefits among the stakeholders.

Outcome 6: National ABS framework under implementation through 6 pilots in 6 jurisdictions achieving the following outcomes: (i) 3 leading agents for new drug production (ii) at least 3 ABS agreements negotiated between users and providers of genetic resources/derivatives; (iii) at least 3 ABS agreements negotiated for products already commercialized; (iv) at least 4 PIC processes with local communities implemented in accordance with the PIC/community protocol supported under component 1; and (v) enabling that direct financial community benefits be derived from utilisation of their local genetic resources and traditional knowledge.

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End Date:	September 14, 2020	Provincial Government \$ 7,800,000	
Management Arrangements:	NIM		
PAC Meeting Date:	TBD		

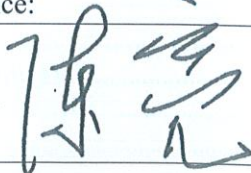
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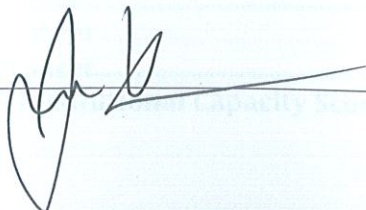
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Acronyms and Abbreviations

ABS	Access and Benefit Sharing
ABS-CH	China's national ABS Clearinghouse Mechanism
AQSIQ	General Administration of Quality Supervision, Inspection and Quarantine
ASEAN	Association of Southeast Asian Nations
ATK	Traditional knowledge associated with genetic resources
CBD	Convention on Biological Diversity
CBIK	Center for Biodiversity and Indigenous Knowledge
CHM	Clearing-House Mechanism
CNBSAP	China National Biodiversity Conservation Strategy and Action Plan
DNA	Deoxyribonucleic Acid
FECO	Foreign Economic Corporation Office
GEF	Global Environment Facility
GI	Geographical Indication
GR	Genetic Resources
IA	Implementing Agency
ICH	Intangible Cultural Heritage
IPR	Intellectual Property Rights
IRCC	internationally recognized certificate of compliance
NBSAP	National Biodiversity Strategy and Framework
NGO	Non-Governmental Organization
MAT	Mutually Agreed Terms
MEP	Ministry of Environmental Protection
MOA	Ministry of Agriculture
MOFCOM	Ministry of Commerce
MOST	Ministry of Science and Technology
NP	Nagoya Protocol
PIC	Prior Informed Consent
SFA	State Forestry Administration
SIPO	State Intellectual Property Office
TCM	Traditional Chinese Medicine
TCMP	Traditional Chinese Medicine and Pharmacology
UNDP	United Nations Development Programme

SECTION I: Elaboration of the Narrative

PART I: Situation Analysis

INTRODUCTION

1. China is considered as one of the world's megadiverse countries. Some 11,000 species of plants and 2,800 species of fauna found in China have identified medicinal properties. The country boasts a long agricultural history spanning a period of over 5,000 years. As part of this history, rich genetic diversity has emerged through natural and artificial selection.
2. China is also a country with multiple ethnic groups. The distribution of ethnic groups in varied geographic areas has enabled people to create diverse traditional knowledge in the process of conserving and sustainably using biodiversity. Such traditional knowledge includes: (i) biological knowledge of crop resources with unique characters; (ii) traditional medicine; (iii) traditional farming methods and production models that facilitate comprehensive and recycled utilization of biological resources; (iv) traditional culture that promote biodiversity conservation; and (v) traditional biological products—including some that have been granted geographic indications
3. China's rich biological heritage has a vast potential to be explored for new wealth creation and to enhance the development of the nation in line with national policies on biological diversity and biotechnology. At present, however, China lacks a national regulatory framework on access and benefit-sharing (ABS). A national ABS regulatory framework would seek to achieve, *inter alia*, the following: (i) fulfil China's legal obligation to fully implement CBD; (ii) ensure that all bio-prospecting initiatives are legally carried out and the benefits fairly and equitably shared; (iii) encourage the establishment of systems for open exchange of information among key stakeholders; (iv) outline a process for building national capacity for biotechnology development; (v) promote the recognition of ATK associated with biological resources; (vi) promote recognition of the value of biological resources and diversity and thus drive their conservation and sustainable use, and; (vii) enable custodians of these resources and associated TK to receive benefits and alternative livelihood opportunities.
4. The long-term solution towards which this project will therefore contribute is the establishment and operationalisation of a robust legal and institutional framework for implementing a national and provincial ABS framework in China, ensuring benefit sharing with regard to genetic resources, as well as equitable distribution of benefits to the holders of associated traditional knowledge, as prescribed in the Nagoya Protocol (NP). Such a framework would strengthen economic arguments and incentives for the conservation and sustainable use of the biological resources that contain the genetic material, while helping to prevent the loss of associated traditional knowledge.

CONTEXT AND GLOBAL SIGNIFICANCE

Biodiversity context

5. In terms of biodiversity, China is one of the richest countries in the world. It is home to some 10% of Earth's plant species and 14% of its fauna. With 34,984 known species of higher plants, it is third in the world on the number of higher plant species—about 50% of which are endemic. Its 6,445 vertebrate animal species accounts for 13.7% of the world's total, while its more than 10,000 fungi species, make up 14% of the global total. Agriculturally, the genetic resources found within these species are globally important; China is the centre of origin of important crops such as rice

and soybeans and an important source of origin and distribution of wild and cultivated fruit trees.¹ China preserves more than 400,000 accessions of crop resources and 576 identified breeds of livestock and poultry. Over 1,339 species of cultivated crops and 1,930 species of wild relatives distributed in China.

6. The provinces of Yunnan and Hunan, as well as Guangxi-Zhuang Autonomous Region, are all highly biodiverse:

- **Yunnan Province** is located in the upstream of most major rivers in China and east Asia, such as the Yangtze River, the Zhujiang River, Mekong River, the Nu River, the Red River, and the Yiluowadi River. Altitudes range from a high of 6,740 meters to a low of 76 meters, providing diverse ecosystem patterns ranging from tropical to alpine ecosystems, due to its diversified climate and ecological zones. Its unique natural environmental conditions provide complex ecosystems, which are suitable habitats for the evolution and breeding of a broad range of species, including biological resources and associated germplasm and genetic resources within some 105 major types of forest. Known variously as “the kingdom of animals”, “the kingdom of plants”, the “home of bamboo”, a “treasure trove of medicinal forest”, a “museum of fragrance”, a “great natural garden” or a “great fungi world”, Yunnan is home to approximately 63% of the country’s higher plant species, and 59% of its vertebrates. Yunnan is the country's most biodiverse province. It is also culturally rich, with 26 ethnic minorities, 15 of which can be found only in Yunnan. It is home to more than 1,300 kinds of ethnic medicines, including Dai medicine.
- Within Yunnan, Xishuangbanna Dai Autonomous Prefecture is the first established ethnic minority autonomous prefecture in Yunnan. Xishuangbanna has a 966 km border with the Lao PDR and Burma. More than 13 known ethnic groups are located in Xishuangbanna. The neighboring city of Pu’er is Yunnan’s largest city by area (in terms of municipal jurisdiction, and its population includes approximately 59% ethnic minority people. Some 1,000 medicinal plants have been identified in Xishuangbanna and Pu’er, among which 758 species are rare and precious medicines, 302 species are medicinal plants which are described in the national census. Xishuangbanna and Pu’er are also listed as key development areas for the “tropical and sub-tropical flower industry” under the Biological Industry Development Planning Outline of Yunnan Province (2006-2020).
- **Hunan Province** is a major agricultural province, home to a large number of species that have been accorded geographical indicator (GI) status under Chinese law. Xiangxi Tujia and Miao Autonomous Prefecture is located in western Hunan province. Its ethnic minority population includes many different groups with diverse culture, and accounts for 78% of the total population. These populations are geographically remote and as a result have developed a large number of unique agricultural animal and crop variety resources.
- **Guangxi Zhuang Autonomous Region** is one of five autonomous regions (province-level governmental structures) in China, with a total population that includes several ethnic groups. Its biodiversity is varied, evolving through a subtropical monsoon climate pattern. Guilin prefecture is the center of politics, economy, culture, science and technology of the region and is home to a diverse ethnic culture. *Siraitia grosvenorii* is among its most important species in terms of potential genetic utilisation and recent discoveries; however, its germplasm resource has been declining and for various other reasons its wild population and habitat for wild population are thought to be slowly disappearing. The Fangchenggang (prefectural level) city is located at southernmost point of the mainland coastline. It is the home of the State Golden Camelia Nature Reserve, declared in 1986 by Guangxi Zhuang Autonomous Region for the protection of the Golden Camellia (*Camellia nitidissima* Chi). This endemic species has a narrow-range of distribution and has long been a source of cooking oil. In recent years, through scientific research it has been identified as the key component for producing high-value beverage products.

¹ Fifth report to CBD.

7. China is facing major threats to its biodiversity. Biodiversity loss can lead to serious consequences, such as worsening health problems, higher food risks, increasing vulnerabilities and fewer development opportunities. Biodiversity conservation is therefore strategically important for China's long-term socio-economic development, for the well-being of its present and future generations, for building an ecological civilization in China and for implementing initiatives such as “Beautiful China.”²

8. China’s advanced culture extends back over many centuries, during which unique traditional medicinal systems were developed by many of the country’s ethnic minorities. The identification and breeding of particular species to accentuate their medicinal properties, as well as the identification of those properties and their uses as medicines, forms an essential part of the legacy of traditional knowledge held by these minority groups. In some instances, particular species and knowledge was held by an entire ethnic group, or even shared among many such groups; in others, it was limited to a particular community or family. Over the centuries, Chinese and other scholars have endeavoured to collect this knowledge into compendia of Traditional Chinese Medicine (TCM) and to preserve the medicinal plants themselves in botanical collections and herbaria.

Legal and policy context

9. The Convention on Biological Diversity (CBD) in its preface specifically recognizes each State’s sovereign rights over its own biological diversity, and its article 15 recognizes each State’s sovereign rights over own genetic resources, clarifying that States have full rights to regulate access to these resources. One of the three objectives of the CBD, as set out in its Article 1, is the *“fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding”*. Article 15 of the CBD provides the framework relating to the rights and obligations regarding access to genetic resources and the objective of benefit-sharing with regard to their use, for which national governments are obliged to take legal, administrative or policy implementing measures.

10. Policies, plans and strategies for utilizing genetic resources in ways that also conserve and sustainable use of China’s essential biodiversity have been developed and presented in various policy documents. China’s National Biodiversity Conservation Strategy and Action Plan (CNBSAP), include: the National Programme for Conservation and Use of Biological Resources (2011-2030), the National Programme of Action for Conservation of Aquatic Biological Resources, the National Plan for Water Area Zoning of Important Rivers and Lakes (2011-2030), the National Plan for Zoning of Marine Areas (2011-2020), the National Twelfth Five-year Plan for Implementation of Wetland Conservation Projects (2011-2015), the National Plan for Island Conservation (2011-2020), the National Plan for Conservation and Use of Livestock Genetic Resources, the National Plan for Support to Science and Technology, National Plan for Development of Key Fundamental Research, National High-tech Development Plan, National Natural Sciences Fund and Specialized Funds for Research in Public Benefit Sectors.

11. Also of relevance in the context of ABS is China’s well developed legal system for protecting the rights and interests of “ethnic minorities”. Both constitution and relevant laws of P.R.C specifically stipulate that the culture and customs of ethnic minorities shall be respected and protected. Many ethnic minority communities have preserved genetic resources and associated traditional knowledge. These genetic resources and associated traditional knowledge have been playing an important role in the process of cultivating crop new varieties. To date, however, the concepts clarifying the meaning and ownership (property rights) with regard to the genetic resources and traditional knowledge associated with genetic resources remain insufficiently addressed within that system.

² Ibid.

12. Another important aspect of the legal context has to do with the legal administration of the country's autonomous areas. China is organized administratively into several levels (central level, provincial level, municipal level and county level), with most legislative focus at the national, provincial levels. At each level, there are minority autonomous governmental units, along with others that are not autonomous. For example, at the Provincial level, there are both Provinces (non-autonomous) and Autonomous Regions. Autonomous status is enacted only for governmental units in areas that have a relatively large presence of ethnic minorities. For such areas are rich with genetic resources and associated traditional knowledge, therefore, these areas tend to closely related to establishment and implementation of ABS regime.

13. In legislating to address local actions, generally speaking, provincial government has limited legislative power. However, Autonomous Regions' governments have wider latitude in legislation. Compared to other governmental units at city or county level, minority autonomous prefectures and counties enjoy legislative power. Autonomy Law on Minority areas stipulates that governments in minority areas can issue specific laws in some fields (such as protection of minority traditional culture); In addition, in accordance with the newly amended Legislation Law, municipal government with subordinate districts may enact local legislation (or decrees) related to urban and rural construction and management, environmental protection and historical and cultural conservation. This regulation creates further opportunities for piloting an ABS Framework.³

14. Normally, provincial legislation directs the actions of prefecture-level governmental units in an analogous way; however, autonomous prefectures have latitude similar to that granted to Autonomous Regions. There are Autonomous Counties as well. The work of preparing a national regulatory framework on any topic is not complete until guidance is prepared to assist provincial-level governmental units in implementing it.

15. Regarding the status of development of a national regulatory framework on ABS, China has so far made only limited progress. Its 5th National Report to the CBD (2014) notes: "There are no specialized laws or regulations to address issues such as access to genetic resources and benefit-sharing." However, several recent laws and implementing regulations make reference to particular elements of the management of genetic resources and benefit-sharing. Most notably, as further discussed at paragraphs 27, 50 and 60, below, some provisions of the 2005 Animal Husbandry Law regulate the protection and administration of genetic resources and specify that benefits from the use of exported genetic resources are to be shared. This marks the first time that such benefit-sharing has gained legal consideration in Chinese law. Finally, the 2008 Amendment to China's Patent Law includes provisions requiring the origin of genetic resources to be disclosed, or those genetic resources that accessed illegally, patent shall not be granted.

16. With regard to traditional knowledge associated with genetic resources (ATK), China's legislation includes a framework under the 2011 Intangible Cultural Heritage (ICH) Law, which includes ATK within the broad range of cultural heritage protected in accordance with China's international responsibilities. The ICH Law focuses on the protection and inheritance of ICH, in part through the a catalog of representative protected items and protection plans, and the development of measures to encourage representative inheritors to undertake activities for inheriting or passing on their inheritance. ATK appears to be specifically included within the ICH Law's definition of "cultural heritage": "various traditional cultural manifestations that are handed down by people of all ethnic groups from generation to generation and are regarded as part of their cultural heritage, and objects and spaces relevant to traditional cultural manifestations."

17. Other existing legislation bearing some relationship to the key genetic resource or traditional-knowledge issues, include the following:

Laws:

- Fisheries Law of the People's Republic of China (adopted in 1986, revised in 2000)
- Law of Wildlife Protection of People's Republic of China (adopted in 1988, revised in

³ See below, Section 2.

- 2004)
- Law of Environmental Protection of People's Republic of China (adopted in 1989, revised in 2014)
- The Quarantine Law of the P.R.C. Concerning Import and Export of Animals and Plants (1991)
- Seed Law of the People's Republic of China (adopted in 2000, revised in 2004)

Administrative regulations:

- Regulations on Protection and Management of Natural Herbal Resources (1987)
- Regulations on Protection of Traditional Chinese Medicine (1993)
- Regulations on Control of Breeding Livestock and Poultry (1994)
- Regulations on Natural Reserves of Peoples Republic of China (1997)
- Regulations on Conservation of Natural Plants of People's Republic of China (1997)
- Regulations on Protection of New Varieties of Plants (1998)
- Regulations of People's Republic of China on Administration of Safety of Agricultural Genetically Modified Organisms (2001)
- Regulations on Administration of Import and Export of Endangered Wild Plants and Animals of People's Republic of China (2006)
- Measures for Examination and Approval of Entry and Exit of Livestock and Poultry Genetic Resources and Related Foreign-related Cooperation in Research and Utilization (2006)
- Rules for the Implementation of the Patent Law of the People's Republic of China (2010)

18. Preparation of a national regulatory framework on ABS will help fulfill China's legal obligation to implement Article 15 and other relevant articles of the CBD. However, the Nagoya Protocol (NP) does not provide detailed prescriptions regarding the contents of national ABS frameworks. For this reason, and because key related policy decisions remain to be made in China's case, it is not possible to be precise regarding the contents of an eventual framework for China. Nevertheless, among the key issues that a framework may be expected to address include the following⁴:

- Ensuring all bio-prospecting initiatives are legally carried out with the prior informed consent (PIC) of the properly authorized provider, as and to the extent mandated and overseen by the authority in China;
- Ensuring that, in all situations in which a user seeks access to Chinese genetic resources or ATK for purposes of their "utilization", an agreement is reached between the bio-prospector and the authorised persons and/or entities in China so that benefits are fairly and equitably shared at every stage of the development of the resource up to its commercialisation including transfer of technology and non-monetary benefits prescribed under the CBD;
- Ensuring that there exists a standard ABS framework for the whole of China;
- Ensuring that the ABS Framework enables not only monetary benefits, but also gains from joint collaborations to ensure transfer of technology so as to build the needed capacity for national biotechnology development;
- Promoting the recognition of ATK associated with the biological resources and ensuring that, when utilized by someone other than its holders, fair and equitable sharing of the benefits arising from such use occurs;
- Recognizing, or reflecting the value of, China's biological resources and thus helping to drive the motivation for rural and ethnic communities to conserve and sustainably use biodiversity;

⁴ The following list is not a complete outline of the drafters' legislative objectives, but only a preliminary version of the legislative draftspersons' terms of reference.

and also to help ensure that local communities who are custodians of these resources and the ATK reap benefits and are provided with alternative livelihoods;

- Complementing the biotechnology industry by ensuring that China reaps maximum benefits from the country's rich biological heritage through a proper legal instrument to regulate access and to spell out how benefits must be shared.
- Addressing and/or implementing other aspects of the Nagoya Protocol.

THREATS, ROOT CAUSES AND IMPACTS

19. China faces challenges from a wide range of issues that threaten its biodiversity and ecological stability. These concern, *inter alia*, competing land use for socio-economic development such as plantations, urban and industrial growth and water storage dams. Overall, natural resources are subject to increasing pressures.

20. With rapid economic development and globalisation of the economy, China's globally significant genetic diversity has come under increasing threat. Urban and industrial development contribute to degradation of ecosystems and biodiversity. Habitat loss and fragmentation due to urbanisation, infrastructure and farm land development pose severe pressures on wild fauna and flora, including the wild relatives of crops; commercial pressures have resulted in the diminution of diversity in traditionally diverse agricultural varieties, as well. Excessive exploitation and utilization of wild species for subsistence and commercial use have resulted in the decreased abundance of many medicinal plants and wild animals. Other factors include fragmentation of forested landscapes by roads and other infrastructure, invasive alien species, and climate change.

21. In line with the above, local communities' traditional knowledge associated with genetic resources is disappearing due to rapidly changing traditional lifestyles. Much of this knowledge—including medicinal uses of biological resources, farming methods and techniques and cultures closely related with nature and biodiversity—is being replaced by modern technology.

22. In the context of the present project, the degradation or loss of biodiversity also leads to the loss of associated traditional knowledge, as does the loss and degradation of habitats, fauna and flora. The convenience of modern medicine, easily available modern technology, increasing connectivity with urban civilization, and the lack of awareness of the importance of ATK among communities also cumulatively contribute towards the erosion of traditional knowledge.

23. The main root cause of biodiversity loss in China centers on the lack of economic value placed on biological resources and ecosystem services, and the lack of any national accounting system that would allow such values to be considered in economic planning processes. There is also a lack of information on the value and quantity of biological resources. Such information would be needed in order to calculate the actual and potential benefits from the exploration and exploitation of genetic, biochemical and ATK resources.

LONG-TERM SOLUTION AND BARRIERS TO ACHIEVING THE SOLUTION

24. China's genetic resources need to generate tangible local and national benefits if they are to incentivize the safeguarding of biological diversity. Such benefits will be in the form of business, employment and capacity building opportunities, through the development of a national ABS framework and the discovery and development of new medicines or agrochemicals, thereby providing a rationale for the preservation of the biological resources that contain this genetic material and other genetic resources that might provide such benefits in the future. This will represent a paradigm shift from the situation described above, to one in which biodiversity-rich nations such as China are fully and equitably involved in this lucrative research process with the primary goal of promoting people-centric conservation and sustainable use. The long-term solution is therefore to establish and operationalise a robust legal and institutional framework for

implementing the national and provincial ABS regime in China, ensuring equitable distribution of benefits to the holders of genetic resources and associated traditional knowledge as prescribed in the NP.

Barriers

25. Efforts to achieve the above long-term solution will need to confront the following barriers:

Barrier 1: Insufficient Legal and institutional settings for ABS implementation.

26. China is currently underway of research for accession to the NP, and to develop national legislation on ABS and establish its institutional framework. However, concrete and operational mechanisms and regulations on protection of traditional knowledge remain insufficient. Even the medical resources and traditional knowledge that comprise traditional Chinese medicine, which is widely regarded as a national treasure, do not receive adequate legal protection.

27. Within China, a few national-level provisions have been adopted making mention of genetic or traditional knowledge resources. In essence, however, these provisions operate only as opportunities for particular activities to be later integrated into the future ABS framework, and do not by themselves create that framework or pilot any significant part of it. Most prominent among these is the 2005 Animal Husbandry Law, which discusses in generic terms the “protection... and rational use of the genetic resources of livestock and poultry”. Although sometimes regarded as China’s first ABS legislation which proposed “benefit sharing”, this law does not implement Nagoya Protocol requirements relating to ABS.

28. In addition, significant accomplishments have been achieved through the efforts of the MOA, focusing on databases and collections to maintain and maximise the diversity of agricultural crops.⁵ In recent years, with the goal of enhancing capacity for conservation of wild relatives of crops to safeguard the vast genetic diversity the country harbours, the MoOA has conducted a systematic survey and prepared a catalogue of wild varieties of crops and has developed 116 in situ conservation sites. It has also established a significant *ex-situ* collection of wild plants, preserving nearly 400,000 plant genetic resource specimens. It is planning to invest an estimated US\$8 million in establishment of over 500 germplasm conservation projects.

29. In 2011, as noted above, China promulgated the Intangible Cultural Heritage Law. The legislation addresses survey of traditional knowledge related to medicine and traditional skills, but not addresses benefit sharing relating to, ICH or traditional knowledge.

30. In terms of intellectual property rights protection, the Patent Law revised in 2008 has touched upon the issue in Article 5, which reads “inventions created on the genetic resources illegally acquired or utilised will not be granted a patent right”, and in Article 26, which reads “for inventions and creations made on genetic resources to apply patents, the applicant shall clarify the direct resources and origin of the genetic resources”.

31. The lack of a national ABS framework is one source of the difficulties for effectively implementation of NP in the future. There is thus a recognised need for a specific, coordinated legislative and administrative framework addressing genetic resources and associated traditional knowledge based on national conditions and in accordance with the CBD and the NP provisions. Such a framework will have to include a concretely stated approval legal procedure, including PIC for granting access to genetic resources, clear duties and obligations of competent authorities, and fair and transparent mechanisms for benefit sharing.

Barrier 2: Insufficient stakeholder awareness and capacity to develop and implement national and local ABS norms

32. Insufficient awareness of ABS issues is a major barrier to ABS implementation. Key stakeholder groups, all of whom are lacking in awareness, include agencies that are expected to be named as the country's "competent national authorities" and others in charge of various aspects of ABS implementation, as well as providers, users, local residents and communities that hold genetic resources and traditional knowledge, scientific staff and research institutions, businesses and the private sector, public and media. For some stakeholder groups, such as users and researchers, the lack of legal certainty regarding ABS's operationalization in China (see Barrier 1 above) presents a major obstacle to awareness of, and compliance with, their ABS responsibilities. Legal certainty regarding these topics can only be achieved through the adoption of a national ABS framework.

33. Government institutions also have limited capacity to develop and implement ABS principles at national and local levels. Multiple agencies will need to be involved. It will not be possible to operationalize an ABS Framework without significant development of the operational capacities of the relevant agencies and their subsidiary departments.

34. Although the State Council has designated MEP to take the lead in establishing a multi-sectoral and participatory coordination mechanism on ABS, lack of relevant legislation and insufficient capacity have made it difficult to establish an effective forum to coordinate and address ABS activities.

35. Capacity for sound research and development activities by academic and private sector partners is also lacking. The lack of a platform for technology and resource sharing is also hampering awareness raising and application of the ABS concept in research and development and commercialisation activities; a notable exception here is the case of agricultural biodiversity, where some of these challenges are being addressed.

Barrier 3: Limited capacity to regulate, oversee, promote and control bioprospecting and negotiation of viable ABS mechanisms

36. ABS concepts are particularly complex, and their implications on economic development are difficult to fully map. Potentially, however, they may be very important and valuable, as evidenced by the fact that Chinese genetic resources and traditional knowledge have already contributed to an important number of commercial products and that local research companies continue in their efforts to harness the economic potential of these resources.⁶

37. Successful ABS programmes, however, depend on experience and capacity in a number of specific areas, including:

- (i) PIC processes, by which the persons or communities with established rights to the genetic resource or ATK and relevant authorities grant their consent;
- (ii) ABS contractual instruments that will be effective in granting access and requiring benefit-sharing;
- (iii) ABS permits or other instruments that authorize and regulate bioprospecting and/or the removal of particular resources to another location for research and utilization;
- (iv) field procedures for bioprospecting and other germplasm harvesting or collection;
- (v) long-term monitoring and awareness of the progress of utilization of genetic resources or traditional knowledge after it has been accessed or collected;
- (vi) legislative measures regarding Chinese users of GR or ATK sourced in other countries;

⁶ For details, see below, baseline analysis.

- (vii) enforcement and compliance processes, not only to ensure that the initial PIC, contractual and permit activities follow requirements, but also to ensure that benefit-sharing obligations are met;
- (viii) national and global reporting and certification of ABS agreements and processes;
- (ix) inventories, databases and data-management systems;
- (x) active compound discovery programs, and;
- (xi) benefit distribution mechanisms.

38. Each of the above components is an essential element of a robust ABS system. In general, however, the effective operation of each component depends on a combination of experience—gained through learning by doing—and regulatory guidance.

39. Within China, there is an overall lack of practice on formal ABS transactions or PIC processes. There are limited exceptions in that the country has had some experience with the initial development of a system for the management of genetic resource data, in the context of agricultural varieties. Coupled with the lack of ABS regulatory measures (whose development is similarly dependent on experiential factors), this lack of experience constitutes a major barrier to effective operation of an ABS system within China.

40. Experience in ABS, like ABS capacity in general, must be developed at all levels, including most importantly at the local level (especially areas with rich genetic resources and associated traditional knowledge), where genetic resource and ATK providers are directly undertaking PIC and contractual processes, and closest to and best able to oversee bioprospecting and collection. To date, there have been no such PIC or ABS processes—pilot or otherwise—and local awareness of ABS and of the need to observe or participate in local-level ABS activities appears to be almost completely lacking. Users and researchers consequently lack motivation to develop awareness or capacity regarding ABS compliance. Local governments, institutions and research companies have limited scientific capacity to carry out bioprospecting, obtain PICs and facilitate equitable benefit sharing. Finally, in many instances the Chinese government is unaware of the nature and extent of recent and ongoing uses of genetic resources and traditional knowledge.

41. Although ABS offers local communities and other owners (providers) of genetic resources and ATK the opportunity to reap significant benefits from the biological diversity around them by providing those assets to product developers and researchers (users), the participation of both providers and users is lagging; this situation persists in part because the two groups have limited awareness of or capacity with regard to ABS concepts. While this condition continues, relevant government officials do not have clear cut or clearly understood authority to guide and regulate the legally access and utilization of genetic resources and ATK in a manner that protects the providers' rights while empowering and encouraging users to research and develop in the field of genetic resources.

42. A further complication arises from the fact that ABS crosses sectoral lines. As a result, sectoral agencies and regulatory systems must be coordinated so that ABS principles and practices can integrate fully across the range of genetic resource and ATK use.

43. Although the national ABS framework will ultimately provide key stakeholder groups (government, users, researchers and providers) with guidance, authorization and capacity to play their part in all of the myriad aspects of ABS, the development of such a framework must be built on the foundation of experience. Hence, the lack of direct ABS experience in China also forms a major barrier to framework development.

44. An additional challenge for China's providers and for the government agencies that implement ABS are the intricacies of ABS agreements and their development, negotiation and

implementation in the context of multiple industries (e.g., pharmaceutical, agriculture, cosmetics, food and manufacturing) that use genetic resources and traditional knowledge. Without a practical understanding of the underlying contractual process (possibly supplemented by appropriately focused model agreements), there may be little hope of achieving realistic benefit-sharing commitments that will result in actual shared benefits. It has long been recognised that the realisation of actual benefits to the country and concerned communities will provide one of the surest motivational forces that will promote the ABS agenda and the achievement of Aichi Target 16.

STAKEHOLDER ANALYSIS

45. During project preparation, a preliminary stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in project implementation. **Table 1** below lists the key stakeholders associated with establishing a national ABS framework in China.

Table 1. Roles and Responsibilities of Stakeholders in Project Implementation

Stakeholders	Relevant roles in the project
Ministry of Environmental Protection (MEP)	Through its Foreign Economic Corporation Office (FECO), MEP is the national executing agency for this project providing a national project director and ensuring quality and timely results monitoring and reporting of the project. MEP is the overall National Competent Authority for implementation of the ABS regime, and is also responsible for reporting entity for the Convention of the Biological Diversity (CBD). It also coordinates implementation of the National Biodiversity Strategy and Framework (NBSAP) as well as the China Biodiversity Partnerships and Framework (CBPF).
UNDP	At the request of the Government, UNDP will serve as the GEF Implementing Agency (IA) for the project. In this role, UNDP will ensure project execution on time, on scope and within budget and draw on technical services provided by its regional offices and headquarter to provide technical quality assurance. The project assurance and support functions will be provided by the UNDP China Country Office as well as UNDP Asia-Pacific Regional Centre which houses technical advisors for these projects.
National People's Congress - Committee of Environment and Resource Protection	With the Legislative Affairs Office of the State Council, a key entity for providing guidance to enactment of the ABS laws and regulations and play a leading role in promoting ABS legislation.
Ministry of Foreign Affairs(MFA)	Responsible for diplomatic affairs on behalf of the Chinese government, reporting on legal issues concerning foreign affairs and international law developments, concluding bilateral and multilateral treaties and conducting international judicial cooperation between China and other countries, handling legal cases involving foreign country or party, coordinates the compliance of international treaties, and organizes the participation in diplomatic negotiations on environmental treaties, etc.
Office of legislative affairs of the State Council	Responsible for the approving legislation including the Regulations on the Management of Access and Benefit Sharing of Genetic Resources.
Ministry of Science and Technology (MOST)	Responsible for ensuring scientific and technology development and supervision of scientific research relevant to genetic resources. Initial discussions indicated some informal expectation that MOST will be designated as a CNA for research, including academic and non-commercial research.
State Ethnic Affairs Commission	Responsible for drafting regulations and policies related to ethnic affairs, coordinating the implementation of Law on ethnic autonomy.
Ministry of Finance	GEF Operational Focal Point. Coordination and implementation of GEF projects.
Ministry of Agriculture (MoA)	Responsible for the examination and approval of collection, import and export of agricultural wild plant, validation of new varieties of plants, regulation production,

Stakeholders	Relevant roles in the project
	operation, imports and exports of crop seeds, grass seeds, and fungus seeds, examination and approval for import and export of aquatic seedlings and genetic resources of livestock and poultry. It is a key technical ministry to be involved in the adoption of Regulations on the Management of Access and Benefit Sharing of Genetic Resources and establishment of the National Clearing-house mechanisms in co-operation with MEP. Initial discussions indicated some informal expectation that the MoA will be designated as a competent national authority (CNA) for agricultural uses and activities involving GR and ATK
Ministry of Commerce (MOFCOM)	Responsible for formulating the strategies, guidelines and policies related to the development of domestic and foreign trade and international economic cooperation. It is also responsible for regulating import and export commodities and technologies.
General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)	One of the agencies identified as potential check points at national level. Responsible for inspection of import/export biological resources. AQSIQ is expected to play a key role in ensuring sound inspection of entry and exit biological resources.
State Forestry Administration	Responsible for the examination and approval of forest genetic resources, seed, seedlings, terrestrial wild animals or animal products for import and export approval, capture, specimen collection, domestication and trade of wildlife under special state protection, the examination and approval of new varieties of plants etc. Key technical ministry to be involved in the adoption of Regulations on the Management of Access and Benefit Sharing of Genetic Resources and related activities, in conjunction with MEP. Initial discussions indicated some informal expectation that the SFA will be designated as a CNA for forest GR and ATK
State Intellectual Property Office (SIPO)	Responsible for information technology, patent work and comprehensively coordination of the foreign related affairs in the field of intellectual property. Directly responsible under existing legislation for ensuring the implementation of the article regarding source disclosure requirement in the Law of Intellectual Property Rights and the audit of the patent. Initial discussions indicated some informal expectation that SIPO will be designated as a potential check point at the national level. Key entity for promotion and implementation of the Regulations on the Management of Access and Benefit Sharing of Genetic Resources, as well as existing legislative provisions relating to disclosure of origin in the patent law.
State Administration of Traditional Chinese Medicine	A bureau under the jurisdiction of National Health and Family Planning Commission of the People's Republic of China, responsible for regulation of the Chinese medicine industry and for promoting development of the science of Traditional Chinese Medicine and Pharmacology (TCMP) as well as safeguarding associated traditional knowledge. This bureau organizes the TCMP resources census of the Chinese medicine, promote protection, and development and rational utilisation of these resources and contributes to protection of the intangible cultural heritage of traditional Chinese medicine. Initial discussions indicated some informal expectation that this bureau will be designated as a CNA for ABS transactions involving GR and ATK related to TCMP.
Ministry of Culture	Responsible for promoting public cultural service, guiding the cultural development at a grass-roots level, and for protecting “non-material (or intangible)” cultural heritage including traditional knowledge. The declaration, examination and approval and protection intangible cultural heritage are being carried out by The Ministry according to the 2011 non-material cultural heritage protection law. It is also responsible for evaluation of the application of intangible cultural heritages for national recognition. Initial discussions indicated some informal expectation that the MOC will be designated as a CNA for certain cultural and ATK issues.
Sub-national Governments	Provincial-level, prefectural-level and county-level governments will play an important role in establishing and implementing local ABS regime, as regulators and administrators.

Stakeholders	Relevant roles in the project
Local communities	Providers of genetic resources and holders of traditional knowledge associated with the resources. Local communities of selected counties and townships will directly participate in ABS regime demonstration and benefit sharing practices as a key stakeholder under component 3. Many of the local communities which are expected to be involved in pilots are ethnic minority communities. As noted in the Environmental and Social Prescreening for the PIF, a thorough local level socioeconomic assessment and consultation will be conducted during the PPG to obtain the consent of the ethnic groups to participate in the project pilots. Full environmental and Social Screening will also be conducted during the PPG phase.
Research institutions	Institutions mandated to undertake survey and collection of biological resources (e.g. Institute of Botany and Institute of Zoology under Chinese Academy of Sciences; biology schools in colleges and universities; research academies of agriculture, forestry, environmental sciences, and medical sciences; local research institutions, etc.) will participate in project activities as needed and provide technical support to ABS regime implementation. For instance, taxonomists can provide technical support to survey and identify genetic resources and to the settlement of benefit sharing issues in relation to species that are not endemic and distributed across national boundaries. The Center for Biodiversity and Indigenous Knowledge (CBIK) is expected to be an important partner in ABS education and public awareness in Yunnan and other pilot provinces as appropriate.
Private Sector	Businesses and enterprises in bioprospecting, biotechnology and bio-industries are key stakeholders to the project, in establishing the ABS regime and in implementing the pilot component in particular. Private sector participants are expected to include: (i) biotechnology companies that culture tissues, extract and isolate derivatives to provide genetic products; (ii) users of the genetic resources and derivatives such as pharmaceutical, cosmetic, agrochemical and manufacturing industries; (iii) manufacturing and retail sectors for traditional Chinese medicine and agricultural products; and (iv) developers of new products based on traditional Chinese medicinal plants and animals.
NGO and Civil Society Organisations	NGOs and civil society working on relevant issues with communities and institution are potential stakeholders. They could participate in public awareness raising and training activities targeting communities. In addition, through close cooperation with local communities, they may serve as agents and voice of local communities and assist them to gain more reasonable benefits from commercialisation of their genetic resources.

BASELINE ANALYSIS

46. As noted above, China has an extensive and long-established agricultural base, including significant *ex situ* cultivation of medicinal plants and traditional varieties. Much of the latter provides source materials for the production of extracts and essences, which, although intended for direct medical use by consumers, may also provide sufficient genetic and biochemical information to enable the development of the genetic resources contained in those products. These well established lifestyles depend on the continuance of the traditional markets for these products – an eventuality that is made less likely, where genetic and biochemical utilisation of the species may create a competing market that does not depend on traditional sourcing. Within the project specific examples of this situation are found in the pilots addressing the cultivation and use of the *Dendrobia* orchid, the golden camellia and *Siraitia grosvenorii*, and, to a lesser extent, the three other pilots reflect the possibility that it may develop in future. These are only a few examples of the general situation regarding medicinal plants and other plants, animals and fungi in China.

47. Even before adopting and implementing its ABS Framework, China is well aware of the value of the uniqueness of its biological resources. In addition to 164 agricultural species from around the country that have been granted geographical indication (GI) status in China under the

country's national intellectual property laws, 10 Chinese GIs are now also recognized as GI under European Law.

48. The Chinese Government has been making major efforts to safeguard its genetic biodiversity through implementation of the China National Biodiversity Conservation Strategy and Action Plan (CNBSAP) for 2011-2030, under the leadership of the MEP as the responsible agency for the CBD. The CNBSAP identifies priority actions and projects related to ABS, including:

- Action 8 on the survey and cataloguing of genetic resources and related traditional knowledge, which emphasizes surveying traditional knowledge, innovation and practices related to genetic resources in the ethnic minority-inhabited areas, establishing databases and undertaking studies and demonstration projects concerning benefit sharing.
- Action 21 on establishing a regime and mechanisms of conservation, access to, and benefit sharing of, genetic resources and related traditional knowledge, including activities to: (a) develop policies of and regulations on access to and benefit sharing of genetic resources and related traditional knowledge; (b) improve regulations on disclosure of origins of genetic resources in patent applications, establishing procedures for obtaining PIC and negotiating mutually agreed terms (MAT) in ABS transactions, and ensuring that inspection of the import and export of biological resources will be operated effectively; and (c) establish administration mechanisms, administrative agencies and technical supporting systems for ABS and improving related information exchange mechanisms.

49. In order to fully prepare to accession to NP, China is carefully studying on ABS national regime to regulate the conservation and utilization of biological and genetic resources”.

50. Actions associated with developing the national ABS framework may include ABS related legislation drafting of the Regulation on Management of Access and Benefit Sharing of Genetic Resources (ABS Regulations) and formal establishment of the National ABS Clearing house. ABS-related issues have been integrated in various official plans including China's National Biodiversity Conservation Strategy and Action Plan. Training courses have been organised since 2010 targeting decision makers.

51. Other key baseline efforts related to ABS include the following:

- The State Council's release of the Outline of the National Intellectual Property Strategy, which incorporates “effective protection and rational utilization of genetic resources, traditional knowledge, and folklore” as a strategic goal. This goal includes strategies oriented around the protection, sustainability, development and utilisation of genetic resources and traditional knowledge, as well as coordination of these issues with intellectual property rights for traditional medicine. As noted above, the Patent Law was also revised in 2008 to include provisions for genetic resources.
- MoA has conducted a systematic survey and prepared a catalogue of wild varieties of crops and has developed 116 in situ conservation sites. It has also established a significant ex-situ collection of wild plants, preserving nearly 400,000 plant genetic resource specimens. It is planning to invest an estimated US\$8 million in establishment of over 500 germplasm conservation projects.
- The State Forestry Administration (SFA) is preparing a national report on forest genetic resources and has conducted a national survey and catalogue of oil-tea camellia genetic resources in 2012. The three agencies of industry and commerce, quality supervision, inspection and quarantine, and agriculture are working on the programme National Products of Geographic Indication. The programme aims to identify natural, agricultural or manufactures products that have a specific geographical origin and possess qualities,

reputation or characteristics that are essentially attributable to that place of origin, and will link ABS regime with protection of national product of geographic indication.

- The Ministry of Commerce (MOFCOM) is strengthening the regulation of the import and export trade of the traditional Chinese medicine extracts and derivatives to enhance monitoring of exports of genetic resources.
- The Ministry of Science and Technology is funding scientific research institutions to undertake a number of research activities pertaining to conservation and sustainable utilization of genetic resources and related traditional knowledge.
- The State Administration of Chinese Traditional Medicine is strengthening the management of the traditional Chinese medicine resources and related traditional knowledge, and promoting benefit sharing from the industry to the holders of traditional knowledge. In 2012, it conducted a national census of traditional medicinal resources. With the results, it is in the process of establishing a traditional medicine database. It is planning to invest US\$ 2 million establish a research centre specialising in traditional knowledge of the Chinese medicine.
- A programme on national intangible cultural heritage protection by the Ministry of Culture aims to promote conservation and benefit sharing of, *inter alia*, some traditional knowledge.

52. Although, to date, there appear to have been no negotiations or PIC (in the sense of NP) in China with regard to genetic resources or ATK, the utilization of those resources has been ongoing. As demonstrated in field visits undertaken during the PPG, the use of certain plants and animals and their extracts and parts as market commodities has been generally considered in China to be utilization of genetic resources. Similarly, traditional processing practices, as well as traditional medicinal knowledge, have been considered to be “traditional knowledge associated with genetic resources” for purposes of applying the Nagoya Protocol. Seen in this light, the commercial and scientific utilization of genetic resources and ATK has been ongoing in China, in some cases for centuries.

53. From this perspective, the utilization of genetic resources and ATK in China appears to be very extensive, including primary commodities of great importance (cured pork products and tea), luxury commodities utilizing local plants (some uses of Golden camellia), cosmetic uses (some uses of Dendrobia) and medicinal or “healthy alternatives” (Dendrobia, *Siraitia grosvenorii* and Dai ethno-medicinals.)

54. In addition, the vast market in traditional Chinese medicines (TCM) represents in many cases not only the traditional knowledge of specific ethnic groups, but also in some cases, the direct development (by traditional plant breeding) of new varieties with enhanced medicinal properties.

55. Other agricultural commodities, including animals such as pigs, are recognized to have special characteristics that have been developed over many generations by particular communities. Chinese law allows these species to be given the protection of geographical indication (GI). The range of potential issues relating to China’s somewhat unusual use of GI to patent particular natural varieties and sub-species or even, in one case, an individual tree, has particular implications for the ABS framework.

56. Although many of these kinds of uses—the processing and sale of tea as a beverage, for example—have been ongoing for decades or centuries, a number of Chinese entrepreneurs are engaged in identifying new (genetic and biochemical) uses for Chinese medicinal and other plants, including species such as the Dendrobia orchid, golden camellia, *Siraitia grosveborii* and even tea. While most of these appear to focus on the use of direct production of extracts, powders, and essences, as ingredients in new products, some research work involves more modern utilization of DNA and related knowledge.

57. Nearly all such utilization appears to be domestic at present; however, a number of companies indicated potential foreign partners (whether for research, development or marketing) and local extensions of large multinational corporations (e.g., L’Oreal).

58. Local communities, farmers and owners of particular plants, animals and ATK appear to be generally unaware of those resources’ potential as ‘genetic resources’ or of any other aspect of ABS. During consultations with users, it was often stated that the original source of the germplasm, animals or ATK that they are using was not pinpointed—some saying that the process was too costly, but most simply not feeling that it had been necessary. A large percentage of known medicinal species are being preserved and cultivated in genebanks and herbaria, or through various institutions dedicated to TCM. One of the species discussed (Camellia) was being conserved on a formal, government-managed natural reserve.

59. In the course of field visits, the only payments currently related to utilization of genetic resources and/or ATK were one-time payments for the original germplasm—with such payments being made to the TCM institute or natural reserve, rather than the community. The only example of ongoing payments related to the natural reserve which receives ongoing financial support from companies using the Golden Camellia originally sourced there. Often the TCM institutes indicated that they could not pinpoint original provider communities for some (perhaps most) of the varieties they maintain in their herbaria.

60. Significant work has gone forward under the Animal Husbandry Law of 2005, with the goal of enhancing capacity for conservation of wild relatives of livestock species and to safeguard the vast genetic diversity the country harbours.

61. In a number of various institutes of traditional medicines, genebanks and herbaria have been created to preserve traditional plant varieties; while compendia have been compiled identifying some percentage of the country’s store of ATK relating to TCM.

PART II: Strategy

PROJECT RATIONALE AND POLICY CONFORMITY

Fit with the GEF Focal Area Strategy and Strategic Programme

62. The project addresses the GEF 5 BD4 Focal Area objective – *Build capacity on access to genetic resources and benefit sharing*, contributing directly towards Outcome 4.1 *Legal and regulatory frameworks, and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the CBD provisions* and Output 4.1 *Access and benefit-sharing agreements (number) that recognize the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits*. The project will establish the national legal and regulatory framework for ABS, build capacity for its implementation through a range of training, awareness and supportive information management and guidance outputs, and demonstrate best practice ABS processes recognizing the principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits. The project will also directly implement Aichi Target 16 to operationalize the NP by 2015 and ensure consistence with national legislation.

63. The project is consistent with the eligibility criteria and priorities of the GEF Trust Fund as it will support the Government of China to develop the national ABS framework and capacity, ensuring that providers are able to follow PIC and MAT procedures, making certain that rights in GR and ATK are respected and recognised, promoting bio-prospecting and drug discovery and ensuring fair and equitable sharing of benefits accrued (including transfer of technology). In addition, the project will facilitate private sector engagement. Lessons from this project will be used

to improve China's capacities to handle issues relating to ABS, as well as to share this experience among other ASEAN countries, the majority of which do not have an ABS framework or operational ABS regime in place.

Rationale and summary of GEF Alternative

64. **Under the baseline scenario**, China would continue to work towards the implementation of its obligation under Article 15 of the CBD; however, the degree of success in achieving the ABS objectives of the CBD would likely be limited. As a result, local communities might not obtain benefits through the sharing of profits, information and/or technology, even though their genetic resources and traditional knowledge were being utilized.

65. GEF investment in the proposed project will contribute to the accession to the NP, and its acceptance throughout the country. And provide well documented ABS experience and technical expert input to strengthen the completion and quality of the national framework and render supporting information-sharing mechanisms and guidance materials available. These same factors would also be likely to impact the creation, quality and effectiveness of mechanisms to receive monetary benefits from ABS agreements and to distribute or reinvest them. The project will promote coordination between inter-agency, inter-province and other governmental institutions, assist in resolving potential confusion which may adversely affect the framework adoption and implementation.

66. If resources are not available to support the level of capacity building needed to bring key authorities and other stakeholders to implementation readiness in the short term, local experience and information-sharing on the development of PIC, MAT and benefit-sharing will remain inadequate. Biotechnology development and the access to an use of genetic resources and ATK will continue to be weakly regulated, leaving local communities at risk of losing out on these benefits and providing little incentive for improving the security of biological, genetic and traditional-knowledge resources at local level. Overall, the constituency and financial resources for biodiversity conservation would not advance far beyond baseline levels.

67. **Levels of awareness** among decision makers, sectoral agencies, the commercial sector and local communities, concerning the potential benefits of an effective ABS regime would continue to remain low under the baseline scenario. At the national level, there would continue to be little understanding of ABS issues among most sectors, and even where understanding exists, the overall situation would reflect a lack of consistency and shared vision and rationale as to the objectives and practices underlying ABS.

68. MEP, together with Ministry of Education, Ministry of Science and Technology, Ministry of Agriculture, State Forestry Administration, Chinese Academy of Sciences, issued jointly on Oct.30,2014 the Notification on strengthening supervision and administration of utilization and benefit-sharing of biological genetic resources in international cooperation and exchange, which requiring the disclosure of the sources genetic resources and their utilization prospect, as well as the provisions regarding patent/benefit sharing. The Notification however, is more administrative instrument rather than legal measure. The relationships between the users/developers and local producers of those resources are therefore in most cases unlikely to include PIC, to address the rights and needs of local communities and other stakeholders, or to seek, negotiate or otherwise address the equitable sharing of benefits. There are currently no models for consultative processes involved in the development of ABS agreements, including PIC and MAT. This barrier will continue to limit the ability of all stakeholders to understand the rights involved, to comprehend the impact of the procedures required, to fully understand the provisions and implications of such agreements, and to knowledgeably negotiate regarding benefit sharing.

69. **Under the Alternative scenario**, GEF funding will complement baseline programmes and projects by supporting the development of the national ABS framework, and building capacity to enable its rapid and effective preparation, adoption and implementation, and streamline the processes of adopting and establishing the machinery required for full implementation of the ABS regime in line with CBD and Nagoya Protocol requirements. It will include consideration of a range of optional mechanisms related to ABS, such as the so-called community protocols for traditional knowledge and genetic resources, and if agreeing to include such mechanisms, will adopt appropriate legislation to guide and mandate the establishment of such mechanisms.

70. Intensive awareness-raising and capacity-building efforts will ensure that all concerned stakeholders understand the principles behind the ABS regime, the requirements for its implementation, and the potential benefits that can be realized. Checkpoints and authorities responsible for oversight of ABS processes will be brought rapidly to implementation readiness, and through the pilot projects, the proper negotiation and documentation of PIC, MAT and ABS agreements will be demonstrated.

71. *The results* and lessons learned *from the project* will be shared and contribute to global best practices on ABS, and could help other countries to develop and implement suitable ABS and conservation frameworks and modalities. These in turn can also provide useful guidance to ongoing regional and global processes related to ABS. Nationally, the project will ensure that the central, provincial/regional, prefectural and county governments, as well as local communities all gain from China's efforts to promote biotechnology, while encouraging equitable benefit-sharing.

PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS/ACTIVITIES

72. The project objective is to develop and implement China's framework on access to and benefit sharing (ABS) of genetic resources and associated traditional knowledge in accordance with provisions of the Convention on Biological Diversity (CBD) and the Nagoya Protocol (NP), with the goal of addressing identified weaknesses in institutional ABS implementation, ABS awareness and capacity to undertake and/or negotiate access for bioprospecting and other utilization of genetic resources (GR), all of which may operate as barriers to the country's accession to, and implementation of, the NP. With GEF support, the project will undertake the following interventions at national and pilot sub-national levels:

- (i) Establishment of national regulatory and institutional framework on ABS;
- (ii) ABS capacity building and awareness raising, and;
- (iii) Pilot demonstrations on ABS.

73. The project will be delivered through three project components, which are described in detail below, together with associated outputs and activity areas.

Component 1. Establishment of a national regulatory and institutional framework on ABS

74. This component will provide support to Chinese processes directed at developing regulatory and institutional elements of the national ABS framework, including relevant guidance to provincial and regional governments in development and adoption of ABS implementation. Outcomes and outputs of this component are expected to be in compliance with the NP and Article 15 of the CBD, the expected outcome of which is a framework that is fully functional under existing national law and policy. Given the number of ministries and departments whose activities and mandates cover some part of the overall area that must be addressed or affected by ABS implementation, the component will focus significant attention not only on development of functional ABS mechanisms, but also on building a network and system for intra-governmental coordination to ensure that the

ABS mechanisms are practically as well as conceptually functional. The component will consist of six outputs, which are described below.

Output 1.1: State Council of China is provided with information needed to formally approve accession to the Nagoya Protocol

75. Although expressing general support for the ABS concept and expressed support for enter into force of NP over the course of international negotiation, and proposing and undertaking projects and activities in this regard, the government of China has not yet acceded to the NP. The two-step process leading to accession — 1) coordination of relevant sectors, and consensus reaching; 2) approval by the State Council of China, followed by formal accession by the People’s Congress — will depend on a combination of information development, awareness raising, and careful, responsible development of a relevant policy recommendation. Each of these areas of activity is described in detail below.

76. The project will undertake three levels of analysis and information development in support of the high-level approval and accession processes:

- Studying international experience on ABS, including ABS framework and legislation analysis and research on evolving international practices to determine whether and to what extent these international practices and experiences might affect or be of use to China in the development of its national ABS framework. This will cover both the development of global mechanisms under the NP for purposes of addressing ABS transactions that involve more than one country – that is, situations in which a user from one country obtains access to and utilizes genetic resources (GR) and/or associated traditional knowledge (ATK) of another country – as well as the experiences and developments in other countries that have already adopted legislation with the goal of implementing ABS. This work is expected to include an overseas field investigation by government officials and researchers to investigate related institutions in relevant countries, and participation in relevant international conferences;
- Detailed analysis of the legal and physical situation in China regarding: (i) current legislative arrangements in areas relevant to ABS, including the manner in which existing commercial and social legislation will apply to ABS contracts and mechanisms, as well as current legislation that addresses aspects of the governance of biological and genetic resources and commodities; (ii) the extent and nature of GR and ATK in the country, (iii) the current uses and known potential of those resources; and (iv) the extent to which the ABS framework (with its ability to bring a share of benefits and technology to local communities, protected areas and ethnic minorities) might provide an incentive for more effective conservation of existing ecosystems, species and ATK in order to provide a realistic analysis of the extent to which adoption of an ABS framework would have a beneficial impact on China; and
- Field investigations by government officials, directed at specifically identified practical and conceptual challenges relating to the implementation of ABS in China.

77. Although sometimes expressed relatively simply in global policy instruments, the legal and practical implementation of ABS is extremely complex. Workshops and consultations at the highest levels, including both key personnel within affected Ministries and interested members of the State Council and People’s Congress and their advisors and staff, will help these key decision-makers attain a heightened understanding of the ABS concept, get accurate answers to their questions, and communicate their particular focus areas and other areas of concern to those active in supporting and advising on the process of national accession to the NP. It has been noted that, to the extent that conflicts are unresolved and/or overlaps remain among relevant ministries’ mandates and practices

with regard to matters covered by the NP, China's approval and accession processes will be slowed down, if not blocked entirely. Accordingly, these workshops and consultations will play a key role in achieving the level of accord among affected ministries and agencies necessary in order to successfully promote and enable China's accession to the NP.

Policy recommendation to government decision-making bodies

78. Working on the basis of the information developed above, as well as the focus areas and concerns identified, a detailed policy recommendation will be developed. This document will set out the various options available, summarize the most essential information and identify the specific issues on which formal national policy guidance will be needed in the course of national framework development.

Output 1.2: National ABS framework—including, if and as appropriate, NP compliant PIC and community protocols, model contracts, codes of conduct and certificates of compliance/origin on ABS—developed with stakeholder participation and in compliance with Nagoya Protocol

79. A clear and consistent set of national procedures on ABS is essential for any type of ABS implementation, whether formal (under a legislative framework implementing the NP) or informal (under the general principles expressed in Article XV of the CBD.) In China, although a number of laws and other regulatory instruments make reference to genetic resources, however, these laws only have very little content on benefit sharing. In addition, none of the legislative/ regulatory instruments that mention GR address the processes involved in the granting and receiving of access to GR and/or the negotiation and enforcement of commitments related to benefit-sharing.

80. The situation with regard to ATK is similar, with legislation in place that regulates a wider concept (intangible cultural heritage – ICH), but that does not create or mandate any process similar to ABS with regard to ATK or to the wider body of ICH.

81. This output will therefore focus attention on the need to ensure that any efforts to access GR and ATK in China will not be obstructed by legal uncertainties or inconsistencies. It will clarify the validity of the ABS process, as well as ensuring that any legislation is compliant with the provisions of the NP and meets all requirements that the NP imposes on States that become Parties to it. Building on the information and analysis undertaken under Output 1.1, as well as any subsequent national policies or guidance from the State Council and/or People's Congress, this output will include three areas of activity, which are described below.

Development of policies and regulatory provisions addressing access to, and sharing benefits arising from utilisation of, genetic resources and related traditional knowledge, as they shall be applied in China

82. The core challenge in developing any national ABS framework is regulatory clarity—the need to ensure that all parties and officials or agencies involved in any aspect of an ABS transaction know with certainty: (i) what they need to do in order to enter into a valid ABS arrangement, (ii) what they are required to do (duties) and what they are entitled to (rights) under that arrangement, (iii) how to maximise their compliance with all requirements, and (iv) what enforcement measures exist and how to maximise their effectiveness, while minimising the need to rely on them.

83. In order to provide such a framework, a combination of various types of hard and soft instruments must be developed that operate synergistically to create a complete picture of what the national ABS framework will require. Even if some (or many) components of this framework will be

implemented through non-binding instruments, it is necessary for policy and regulatory instruments to authorise and mandate the design and development of this system. To do this, they must address the full range of ABS functionality issues. **Annex 2** presents details of the kinds of questions that will need to be addressed in order to ensure that the framework is objectively verifiable, stable and reliable for all involved.

Develop or strengthen regulations—on: (i) disclosure of the origins of any genetic resources utilised by the applicant, in patent applications, (ii) establishing procedures of mutually agreed terms and prior informed consent for access to and benefit sharing of genetic resources and related traditional knowledge, and (iii) ensuring that inspection of the import and export of biological resources will be operated effectively—so that they coordinate effectively with the national policies and regulatory provisions developed under this output

84. Although they must be a part of the framework authorised through the policy and law elements being developed, certain elements of the ABS framework will not be completely elucidated in those policy and law documents. For example, although the PIC and MAT processes will be included in the design of the ABS framework, the details of how these processes will work, including deadlines for undertaking them and the forms and instruments that must be used, must be officially clarified. Similarly, if the design of the ABS framework determines to mandate or allow the development of community protocols and clarifies the basic elements such as who may or must develop them and what role they serve in the ABS framework, it will be necessary for regulations to address the many details that must be addressed in order to ensure that the community protocol is only prepared by and for persons authorised to do so, and to provide clear rules for that process.

85. The three elements listed in the title to this activity area each involve a different regulatory situation, with regard to the current status of their role in the national ABS framework:

- Existing patent regulations requiring the disclosure of the sources and origins of genetic resources utilised by the applicant are relatively strong in content; however, they do not address certain issues relevant to the ABS framework, including ATK, verification, and the consequences of mis-disclosure and failure to disclose. In the course of addressing these gaps, these regulations must be more clearly coordinated with the national ABS framework.
- At present, there are no laws in China that establish procedures for seeking and granting PIC and MAT, or for the oversight of those processes. Nor are there any regulations governing the negotiation of ABS contracts, or controlling or monitoring access to and utilisation of GR and ATK. Regulations must be developed that specify these processes in detail, so that all participants know exactly what each must do and can objectively confirm that each part of the process has been completed.
- The control of transport (including the import and export of biological resources) is critical to the functionality of the ABS framework. The two must coordinate well, in order for ABS to operate effectively

Establish administration mechanisms and technical supporting systems for access to and benefit sharing of genetic resources and for improving related information exchange mechanisms

86. The project will take the available steps for moving from the design/theory/policy-legislation level to practical implementation of ABS. Although the exact outputs of this process must await the completion of Outputs 1.1 and other activities of Output 1.2, activities here may include steps such as design and establishment of monitoring and record-keeping systems, oversight mechanisms and other tools necessary to ensure that whatever unit(s) or governmental bod(ies) are tasked with ABS implementation are able to operate through and/or coordinate with: (i) other agencies and institutions which cover or relate to any aspect of ABS, (ii) various existing collections, databases and record-keeping systems relevant to ABS, and (iii) other information systems that are

being or will be developed. Another key element of this activity will be the establishment of ABS checkpoints, pursuant to the national framework.

Output 1.3: ABS framework implementation plans formulated and operational, including: (i) plan for access to and benefit sharing of genetic resources and derivatives for commercial purposes; (ii) plan for access to genetic resources, traditional knowledge associated with genetic resources used for commercial purposes including application of PIC and community protocol, and benefit-sharing with regard to their utilization; and (iii) plan for academic/non-commercial research protocol

87. International experience has shown that the critical transition from a policy-legislative framework to practical functionality is often the point at which national ABS frameworks are derailed by insurmountable practical and legal obstacles. Accordingly, this output focuses on identifying and planning the means by which the framework will address key challenges that may arise. This will involve developing implementation plans, together addressing the overall scope of ABS implementation, in three key “implementation areas”: (i) ABS transactions involving GR, (ii) ABS transactions involving ATK, and (iii) ABS transactions involving academic/non-commercial research.

88. In designing plans for the above “implementation areas”, it will be important to ensure that they operate as part of an integrated whole, i.e. as a framework for ABS. Given that all three implementation areas involve a common set of four “activity-elements”—access, benefit-sharing, compliance and capacity-building (extension)—planning of the three “implementation areas” will need to begin with a thorough analysis of these four crosscutting elements to consider how each will be applied within China’s ABS framework. In this way, a single unified approach can be developed for each “activity-element” which will crosscut the individual plans for the three implementation areas. Table 2 below illustrates the above relationships.

89. In light of the above, the output consists of work on the four crosscutting “activity-elements”, followed by a fifth activity area in which implementation plans for the three activity areas are developed.

Table 2: Four cross-cutting elements to be analyzed across three implementation areas

ABS Implementation Area Plan ABS Activity element	ABS Processes Relating to GR	ABS Processes relating to ATK	ABS Processes undertaken for academic and other non-commercial research purposes
1. ACCESS	Plan must address both physical access and the right to utilise the GR	Plan must address the manner of identifying which persons or communities have a legal right to grant access to GR and what rules apply where the GR has been written down in formal compilations. In particular, this process must consider gender sensitivities.	Plan must address the special needs and objectives where research is academic or non-commercial
2. BENEFIT-SHARING	Plan must address both monetary benefits and non-monetary benefits	Plan must address the nature of benefits received / desired, and the mechanism of benefit distribution, and the rights and	Plan must address the benefits of such research and the rights and duties of the researcher with

ABS Implementation Area Plan ABS Activity element	ABS Processes Relating to GR	ABS Processes relating to ATK	ABS Processes undertaken for academic and other non-commercial research purposes
	derived from utilizing the GR, and the mechanism of benefit distribution	duties of a user holding ATK entrusted to it. In particular, this process must consider gender sensitivities.	regard to the information developed (genetic code, compilation / confirmation of ATK, etc.)
3. COMPLIANCE	Plan must address oversight and rules relative to all stages of GR-related ABS (i.e., collection, removal, utilization and benefit-sharing)	Plan must address oversight and rules relative to all stages of ATK-related ABS (i.e., vetting information transferred, utilization and confirmation, and benefit-sharing)	Plan must address integration with the plans developed in the other two implementation areas, giving special attention to any special rights or streamlined processes available in cases of academic or non-commercial research
4. CAPACITY-BUILDING (EXTENSION)	Plan must address the particular capacity issues that will need ongoing extension to future users, providers and national/regional/local authorities	Plan must address the particular capacity issues that will need ongoing extension to future users, providers and national/regional/local authorities. In particular, this must address gender sensitivities and consider the impact of gender on the ability of each person to participate in the process.	Plan must address the particular capacity issues that will need ongoing extension to future users, providers and national/regional/local authorities

90. The five activity areas are described below.

Develop access elements (including PIC, MAT, databases, approval and permit processes) to be applied across all three primary implementation plans

91. This activity will clarify and integrate all aspects of the ABS element, “access,” as it will apply pursuant to China’s ABS policy and law. It will reflect the results of a collaborative process to determine how “access” will be applied in China. It will include analysis of:

- how the term “access” will be understood and applied (what rights and activities are meant by the term);
- who (what person(s), agenc(ies), communit(ies), or institution(s)) is/are the “owner(s)” of the GR/ATK in the sense of having the legal right or ability to grant access to that particular resource;
- who (user, provider, government, or other) initiates the process of obtaining access and how this is done;
- how and from whom PIC is obtained;
- how and with whom MAT are agreed;
- whether and by what agencies the PIC and MAT processes are overseen by government;

- what forms and other mandatory procedures are to be used in obtaining and/or overseeing PIC and MAT;
- whether a permit to access GR/ATK must be issued as a prerequisite to such access and by whom, and what issues must be addressed in such a permit;
- whether and how community protocols can or must be a part of the access process, and what such protocols must include;
- what issues may/must be addressed in the negotiation of an ABS contract; and
- whether, where and by whom the filing of an “internationally recognized certificate of compliance” (IRCC, see output 1.3, below) fits into the access element.

92. For each listed item, an attempt shall be made to consider how it will apply to all possible types of situations. Experience from within China under the pilots (Component 3), lessons learned by other countries in their adoption of ABS legislation (Output 1.1) as well as particular elements of concern identified under Output 1.1 will form major components driving and informing this analysis.

Develop benefit-sharing elements (including payment and distribution mechanisms) to be applied across all three primary implementation plans

93. This activity will clarify and integrate all aspects of the ABS element, “benefit-sharing,” as it will apply pursuant to China’s ABS policy and law and will include a collaborative process to determine how “benefit-sharing” will be applied in China. It will include analysis of:

- how each of the types of monetary and non-monetary benefits that may be shared, with attention to how the concept of benefit-sharing will operate to ensure both actual benefit and fair sharing, within China’s overall ABS framework;
- the relationship between the benefit-sharing element and the access element, particularly in situations where the GR or ABS was accessed from a single owner or community, but is widely held throughout the country or region;
- what benefit issues must be addressed in the PIC, MAT, ABS agreement, ABS permit and IRCC instruments (as appropriate) and processes;
- what flexibility there is within each particular ABS agreement negotiation, to expand, limit or specially define the scope and nature of benefit-sharing under that agreement;
- what external factors indicate that a benefit has arisen and must be shared;
- how the benefit-sharing component of each ABS agreement shall be monitored and enforced and by whom;
- how and with whom benefit-sharing transfers are made and documented; and
- in the case of benefits that must be shared with multiple providers or a community, what mechanisms are needed in order to ensure a transparent and fair distribution of those benefits.

94. As to each above listed item, an attempt shall be made to consider how it will apply to all possible types of situations. Experience from within China under Component 3, lessons learned by other countries in their adoption of ABS legislation (output 1.1), as well as particular elements of concern discerned under that output, will form major components driving and informing this analysis.

Develop compliance elements (including, as appropriate, monitoring, certificates, oversight and enforcement) to be applied across all three primary implementation plans

95. This activity will clarify and integrate all aspects of ABS “compliance,” as it will apply pursuant to China’s ABS policy and law. It will reflect the results of a collaborative process to

determine what ABS compliance and oversight mechanisms will be needed and how they will be applied in China. It will include analysis of the following possible mechanisms:

- the form and contents of the permit or certificate which will be used as an IRCC with regard to ABS transactions that address GR and/or ATK in China;
- the practical configuration of the mechanisms for monitoring ABS agreements and confirming compliance, including reporting, verification and dispute resolution;
- the identification and establishment of ABS checkpoints, including determination of: (i) which agency, official or body shall be responsible for ensuring the functionality of each particular checkpoint; (ii) how the information from each checkpoint will integrate with the global ABS system, and any relevant checkpoints in other countries; and (iii) what will happen when/if the checkpoint identifies any irregularities, misstatements or oversights in information or certificates provided to the checkpoint;
- which agency, official or body shall be responsible for and empowered to undertake enforcement in situations of non-compliance and what enforcement actions it may take.

96. As to each above listed item, an attempt shall be made to consider how it will apply to all possible types of situations. Experience from within China under Component 3, lessons learned by other countries in their adoption of ABS legislation and particular elements of concern (output 1.1) will form major components driving and informing this analysis.

Develop capacity elements (including guidelines, community processes and other outreach) to be applied across all three primary implementation plans

97. The overall ABS framework will necessarily include and concretise numerous capacity-building and outreach mechanisms, given that it will expect rural communities and individuals and officials from decentralised levels of government to play a central and active role in its operation. This activity will consider the role of capacity building (both one-time efforts and regular ongoing capacity/awareness programmes) in the overall ABS framework. It will formally consider what supporting materials (*e.g.*, guidelines, handbooks and other guidance documents, specifically directed to particular stakeholder groups) are needed; define the role (if any) of community protocols as capacity substitutes, and the manner in which outreach mechanisms should be integrated into the overall ABS framework. This work (the development of a long-term ABS extension program within the national ABS framework) will be significantly impacted and assisted by the lessons learned by the project's capacity building efforts under Component 2, with regard to the most significant concerns and needs of the target groups, in seeking to enhance their understanding of ABS and their ability to participate appropriately in ABS transactions.

Develop three implementation plans, each integrating appropriate aspects of the four "activity elements"

98. This activity will draw together the analyses produced under the preceding activities under output 1.3, drawing relevant information from all of them in order to produce the following:

- GR Implementation Plan—a plan for implementation of the overall ABS regime as it will apply to the utilization of China's GR and the derivatives of such GR for commercial purposes);
- ATK Implementation Plan—a plan for implementation of the overall ABS regime as it will apply to traditional knowledge associated with genetic resources used for commercial purposes); and

- Non-commercial Research Implementation Plan—a plan for implementation of the overall ABS regime as it will apply to the utilization of GR and/or ATK for academic and non-commercial research.)

99. While these three plans each have different contents and requirements, they will be derived from the unifying analysis described above. Recognising that those analyses will overlap to some extent and may make divergent recommendations on particular points, the plan development process will focus on practical integration of the outputs.

100. In addition, it will be important to recognize that many (but not all) ABS transactions will involve both GR and ATK, so that the implementation plans must recognise this possibility and address all three situations – ABS transactions (whether commercial or non-commercial) involving GR (only); ABS transactions (commercial or non-commercial) involving ATK (only); and ABS transactions (commercial or non-commercial) involving both GR and ATK. They must also clarify how to determine how the various implementation plans will interact in these situations.

Output 1.4: Establish national-level institutional arrangements for ABS

101. This output will focus on addressing the practical issues that may constitute obstacles to institutional development relevant to ABS. Until the policy and legislative decisions relating to China's overall ABS framework have been made, it is difficult to identify specific new institutions that must be formally established in law and in fact, in order to implement that framework. Nevertheless, the five activity areas described below present a comprehensive set of institutional elements that will need to be addressed in order to prepare the way for, or actually commence, formal institutional establishment and functionality. The issues that must be addressed include: the development of appropriate mechanisms for inter-sectoral coordination; development of an agreed allocation of functional responsibility among the various relevant ministries and agencies; functional creation of an inter-sectoral ABS advisory committee; agreement on the procedures to be used to address any administrative coordination or overlap/inconsistency problems that may arise; and formal and functional establishment of China's national ABS Clearinghouse Mechanism (ABS-CH). These five areas are described below.

Establish inter-sectoral coordinating mechanisms

102. Given the large number of ministries and agencies at the central government level that will potentially be involved in or affected by the operation of the ABS framework, as well as the fact that much of the primary governmental involvement in ABS will be at the provincial/regional, prefectural and/or county levels, it is clear that the overall ABS framework in China will involve a large number of ministries and agencies. In light of the need for a coherent framework that is consistently implemented by this large number of agencies, the focus of this activity will center on the development of mechanisms for inter-governmental and inter-sectoral coordination is critical to this project. Although this activity cannot be completed until after the adoption of national ABS policy and legislation (Output 1), discussions concerning all of its outputs should commence as early as possible, so other work can benefit from awareness of any emerging mechanisms and procedures that may be developed or agreed regarding how the sectors will work together to implement ABS.

Agree on specific institutional functional responsibilities

103. For effective functioning, any cross-sectoral framework must clearly define the roles and responsibilities of all institutions (ministries, agencies, offices, etc.) that will be affected. For purposes of the ABS framework, this will include (at the national level) a variety of ministries and agencies including the Ministry of Environmental Protection (MEP), Ministry of Agriculture (MoA),

State Forestry Administration (SFA), Ministry of Commerce (MofCOM), State Intellectual Property Office (SIPO), Ministry of Science and Technology (MOST), State Administration of Traditional Chinese Medicine, Ministry of Culture and others. Among other tasks, institutional responsibilities related to areas such as designation of checkpoints, and the development of procedures, standards and guidelines that will apply at national and provincial levels, will be allocated.

Create a technical advisory committee with representatives of all relevant agencies

104. Within China, it is a relatively standard practice, in legislative frameworks that involve or impact a variety of ministries, agencies and offices, to formally create and mandate a technical advisory committee, whose members include representatives of all affected agencies. This input will follow established practices to create such a committee related to the ABS framework.

Establish an operational mechanism and procedures related to the processing of ABS applications and documentation

105. The documentation created in the course of any ABS transaction include a variety of instruments, such as PIC and MAT, which document the stage that has been reached in negotiations. Also included is the ABS contract itself, which documents the specific negotiations and commitments by the user and provider. Together these lead to the issuance of an ABS permit, which **may, if and as appropriate**, be or include the IRCC. After completion and submission of these documents, the user and provider and responsible government agenc(ies) may have continuing responsibilities, such as monitoring/reporting, depending on the contents of the MAT and the policy, laws and regulations adopted under Output 1.1, above. In addition, if the ABS framework allows or mandates them, another body of instruments – community protocols – may also be created.

106. Regardless of the ABS Framework's final determination of the specific contents of these instruments, it is certain that the national framework will include most or all of them. Internationally, many of these instruments are part of the global ABS process as well. Accordingly, the submission, processing, retention and organization of these instruments is critical to China's ABS framework. Although the specific content of the national ABS policy, law and regulations may provide additional guidance regarding these mechanisms, it will be valuable for the project if they are set up early on an interim basis, in order to facilitate the functioning and usefulness of the pilots (Component 3).

Create a national ABS Clearing-House (ABS-CH)

107. The CBD's Clearing-House Mechanism (CHM) was established under Article 18.4 of the CBD and is considered by many essential to the CBD's continued success. The CHM operates as an interlinkage of its global website with the national CHMs of the CBD Parties. Nearly all CBD Contracting Parties, including China (english.biodiv.gov.cn), have national CHMs under the CBD.

108. The success and potential of the CHM has caused the Nagoya Protocol negotiators to mandate the establishment of an ABS Clearinghouse (ABS-CH), as a key element of that protocol, calling on each NP Member to participate in the ABS-CH by posting information regarding its national ABS framework and regarding each ABS transaction, as well as addressing capacity-building, awareness raising and other matters.⁷ The mandatory nature of the ABS-CH, as compared with the CHM which is voluntary, has been cited as a reason that the Parties have called for the use of "Common formats and rules of operation need [that are] compatible and, where possible, harmonized across the clearing-houses." As a result of the need to develop these forms and rules,

⁷ See Nagoya Protocol, Art. 14, and see also Articles 6, 12, 13, 17, 21, 22 and 24.

countries that establish their national ABS-CH quickly will have an influential role in the formation of the ABS-CH. At present, relatively few national ABS-CH websites have been posted, suggesting that prompt action in this area may enable China to have a formative role in the global process for development of the ABS-CH, as well as better enabling all three components of this project.

109. One key element of this work will be to develop a practical understanding of the relationship between the overall ABS framework and particular pre-existing databases maintained by various ministries, agencies and other institutions throughout China.

Output 1.5: Proposals and guidelines for financial mechanisms related to benefit sharing, etc.

110. A country's GR and ATK must generate tangible local and national economic benefits if they are to be safeguarded. Such benefits (although often in the form of business opportunities, technological advances, employment and capacity building opportunities) must be known to have been received through China's ABS framework, thereby providing an additional motivation for them to preserve ecosystems and biological resources that contain the genetic material.

111. However, as normally understood, benefit-sharing in ABS is a multi-faceted concept. It may include a range of types of monetary payments and the transfer of non-monetary properties and rights of direct financial value and/or may envision the sharing of information derived from research and analysis of the GR or ATK, as well as, possibly the transfer of technology. The process is further complicated by the ambiguity of the CBD and NP regarding the question of who, specifically, is to receive a benefit share: whether the benefit is to be shared with a particular individual, group or community, or provided to a governmental institution or agency. If the benefit is provided to a governmental institution or agency, further questions arise as to how the benefit shall be distributed and to whom.

112. The only guidance on these matters provided in the CBD and NP indicate that such sharing must be "equitable" and leave its details to a combination of each country's overall ABS framework and the specific ABS documents (PIC, MAT, ABS Contract, ABS Permit/IRCC (as appropriate), etc.) of each particular ABS arrangement.

113. In China, many of these areas of complexity could be decided during the process of adoption of the national policy, law and regulations that comprise its overall ABS framework (Output 1.1); thus, the specific steps to be taken to establish and adopt the components of a benefit-sharing mechanism cannot yet be predicted. Accordingly, this output will focus on assessing the needs for, and options regarding, a benefit-sharing mechanism, as well as outlining the specific steps needed in order to establish one.

Design a benefit-sharing mechanism

114. This activity will involve an in-depth analysis of the benefit-sharing provisions that may be adopted under Output 1.1, focusing on what options and mechanisms may be needed in order to enable the adoption of a functional equitable benefit-sharing mechanism. Such a mechanism will need, *inter alia*, to: (i) meet the needs of the framework; (ii) ensure that benefits are distributed equitably, at the appropriate level(s), in accordance with the overall ABS framework and the contents of the specific ABS documents involved; (iii) enable the sharing of each type of benefits (monetary, in-kind, research results, technology, etc) in a way that maximises its usefulness and usability; and (iv) in appropriate situations, enable the channelling and reinvestment of portions of ABS proceeds towards the conservation of biological diversity and sustainable use of its components.

Component 2. ABS capacity building and awareness raising

Output 2.1: Enhanced capacity and awareness of implementation of China's ABS regime at the national and provincial levels.

115. Consultations undertaken during the PPG were among the first steps in raising national-level awareness in pilot jurisdictions regarding ABS. This process will be broadened as well as deepened during implementation of the full project. Early efforts will focus on enhancing the capacity of relevant personnel in central government ministries and agencies that will have a role in or be affected by the ABS framework. Further effort will be made to address the capacity needs of officials at the provincial/regional level and other jurisdictional levels in which pilot/demo activities are planned under Component 3. Significant effort should also focus on building capacity for the operation of checkpoints, established under output 1.2 above. More broadly, the project will focus on raising the awareness and capacity of local communities, the media and the general public in these jurisdictions and ultimately extending such efforts toward the raising of awareness and capacity throughout China.

- Development of communication strategy targeted at different stakeholders in China.
- Compiling readable handbooks about biological and genetic resources and associated traditional knowledge, as well as the elaboration of NP provisions targeted at different groups (including officials at central and local levels, media and general public, etc.)
- Organizing seminars or training courses for above target groups.

Capacity building of management institutions including MEP, SFA, MoA and MofCOM, SIPO, MOST, State Administration of Traditional Chinese Medicine, Ministry of Culture at the central government level

Through this activity, the capacity of central-government-level ministries and agencies relevant to ABS will be strengthened to support the development implementation of China's overall ABS framework. Among the issues of priority attention will be general awareness and understanding regarding ABS and particular operational needs and responsibilities, as well as staff capacity and motivation, given that there are currently few officials with any understanding of ABS concepts at all. This activity will focus on both preparation of officials to develop (or contribute to), implement and apply the policy, law and regulations that will comprise the overall ABS framework, and also to undertake interim responsibilities to support and gain experience from the pilot/demo activities undertaken under Component 3. To this end, it will consider and address the capacity of these agencies and officials with regard to the specialised needs involved in developing and implementing ABS legislation. In this connection, the project could undertake processes to train these persons regarding the particular components of ABS under the CBD and Nagoya Protocol (including PIC, MAT, ABS contract negotiation and documentation; permit/certificate issuance, as appropriate; monitoring; establishment and operation of a benefit-sharing mechanism; coordination with relevant frameworks on genetic resources, traditional knowledge, cultural resources, biosafety, forests, fisheries, TCM, etc.).

Capacity building for subsidiary organisations at the provincial level

116. Capacity development under this activity will focus on initial efforts to raise awareness of the ABS issue at the provincial level, and build capacity and awareness in relevant officials to take the actions necessary to implement the pilots at the government level of the three pilot province/regions: Yunnan Province, Hunan Province and Guangxi Autonomous Region; and later at the lower jurisdictional levels that will have responsibility for particular pilot/demos. It will provide

the institutional environment necessary to implement the institutional arrangements developed under Output 1.5, and build the capacity of officials at this level to provide direct support to particular ABS negotiations undertaken through the pilot/demos, as described in Component 3. To the extent that particular institutional support mechanisms (data collection and management, monitoring, etc.) have been adopted on an interim basis at the central, provincial or lower levels, this activity will include efforts to enable provincial and lower level officials to utilise and contribute to the operation of those mechanisms.

Capacity building and awareness raising of local communities, the media and the general public in two pilot provinces and one pilot Autonomous Region

117. One of the greatest challenges posed by the ABS concept is that it calls for negotiations between parties of disparate levels of sophistication. On one hand, most users are commercial and quasi-commercial (academic) entities that are relatively accustomed to formal contractual negotiations and legislative frameworks; on the other, most providers except research institutes and reserve institutions for genetic resources, are rural residents, communities or ethnic minority communities (also including provided from *ex-situ* collection) groups of far less experience in these areas. Moreover, although users typically negotiate on the basis of the commercial value of the GR or ATK, as it is used in their products or research, most providers and most governmental officers overseeing ABS are viewing the GR or ATK in terms of its value as biodiversity – its role in its ecosystem – and the possibility that the benefits to be shared might have a positive impact on social welfare and/or conservation in the provider’s area. Thus, the functionality and success of the Pilot/demos will also depend on the development of a relatively high level of awareness and capacity at the levels of the general public, local communities and the media, in the target jurisdictions. In this process, particular attention will be paid to the specific issues related to gender and communications and awareness to ensure that ABS capacity is enhanced for women, men and children.

118. In light of the above, this activity focuses on giving the provider communities, project team members and officials in the pilot jurisdictions, initial training and support in two primary areas: compliance with the ABS framework (*i.e.*, how to comply with PIC, MAT, IRCCs (as appropriate) and other documentation requirements) and negotiation of ABS contracts.

Capacity building and awareness raising for the general public, officials, communities and media

119. In order for the ABS framework to operate effectively, capacity development needs to extend beyond the pilot jurisdictions, to enable other areas to participate at the same level. Through the pilot demonstrations (Component 3) and the information developed in the course of establishing China’s overall ABS framework (Component 1), the country will gain significant experience and understanding of how the ABS framework will operate in China, which will be made available in the form of various types of training materials (Output 2.2). Work under those components will also result in the creation of presentations, analyses, and electronic and other tools (Outputs 2.3 and 2.4) that can be of great value in presenting the ABS concept to the general public, and can provide examples of how ABS can benefit communities.

120. Under this activity, a series of national and local workshops will be developed and presented, with the goal of disseminating materials and describing lessons learned, each targeting one or more key stakeholder groups (users, providers, government officials, academic researchers and other “middlemen, etc.), with particular attention to gender-related issues in the pilot areas (and elsewhere to the extent possible.) The possibility, feasibility and cost-effectiveness of extending this outreach activity into other media of communication and awareness raising (such as radio, newspaper and television presentations, interviews, announcements, etc.) will be investigated, and appropriate additional outreach and capacity-building activities will be designed and presented.

121. A key objective under output 2.1 will be to increase local interest and participation in ABS, and to encourage the wider public to seek access to China's ABS-CH and other available tools developed under this project.

Output 2.2: Training materials and programme for ABS

122. The complexity of ABS makes it imperative that local communities and all relevant government officials have access to easily understood and practically useful information and guidance in how to participate in the ABS framework. Training materials and programmes related to CBD, Nagoya Protocol, bioprospecting, ABS, aimed at enhancing the participants' understanding of China's ABS framework will be needed. To be useful, such materials must be readily accessible, in terms of both obtaining them and understanding/applying them. This output will evolve over the course of the project, with a focus on determining what kinds of training materials have been successfully used, what particular challenges have arisen with regard to matters that are commonly misunderstood or overlooked. The specific aims of this output will include the following:

- to deepen understanding of country needs so as to inform further development of ABS implementation and utilisation;
- to better understand key information and knowledge gaps standing in the way of effective and beneficial ABS contracts;
- to better understand the role that transparent information can play in contributing to ABS functionality, including any limitations and additional solutions that may be needed;
- to better understand key operation gaps that are preventing the effective collection and use of critical information, and thereby hampering oversight and compliance;
- to better understand the gender-sensitivities of the issues that may impact, PIC, MAT and the equitable nature of benefit-sharing;
- to better understand key capacity gaps, enabling the country to better prioritize and coordinate capacity building efforts.

123. In support of the above aims, this output will be based on a careful analyses of ABS uptake and challenges, not only in the pilot/demo jurisdictions, but also in other areas, to the extent possible. These analyses will inform the development of a training programme and modules on bio-prospecting and research procedures, to be made available to national and provincial research institutions. Among other necessary elements, training materials will focus on enhancing the capacity of Chinese users to utilize GR and ATK, by providing guidance on bio-prospecting and research procedures, as well as the particular requirements of compliance with the ABS framework.

Output 2.3: A platform to enable the sharing of technology and knowledge resources with Chinese stakeholders, including through the ABS Clearing-House

124. Connected to the creation and establishment of China's national ABS-CH (output 1.4) in accordance with the mandates and provisions of the NP, the Internet can provide a platform to enable the sharing of technology and knowledge resources with Chinese stakeholders. The nature and content of this platform will be determined based on the analyses undertaken under outputs 2.2, 1.1, 1.4 and 3.1, supplemented by the experience and lessons derived under Outputs 1.2, 1.3 and 3.3. It will focus on integration of the various information sources, collections and databases already existing in China.

Output 2.4: Systems and guidelines for sharing information and knowledge related to ABS among ministries

125. Connected to the inter-sectoral coordination and other institutional development processes described in Output 1.4, it will be essential to ensure that functional systems and mechanisms be developed to support and enhance coordination among relevant ministries, agencies and officials involved in or affected by the implementation of the overall ABS framework.

126. Work under this output will draw on the experience of inter-governmental coordination across the range of Chinese governmental operations in order to identify and develop the most effective tools for such coordination in the ABS context. It will coordinate with the technical advisory committee created under output 1.4, to determine the nature of challenges and the types of information, guidance and technology to be shared. It will utilise a variety of tools, including face-to-face meetings, newsletters and other networking methods, as well as determining whether it will be possible to put the ABS platform developed under Output 2.3 to use for this purpose.

Component 3. Pilot demonstrations on ABS

127. This component will support pilot ABS work within three highly biodiverse provinces/regions: Yunnan Province, Hunan Province and Guangxi Zhuang Autonomous Region. The pilot jurisdictions, as well as the species and location to which each will be addressed, are listed below in **Table 3**. These demonstrations will provide several primary benefits:

- expanded information regarding the feasibility of development of local GR and ATK, and the manner in which this knowledge benefits and enables the ABS process;
- examples of practical approaches to the ABS framework and procedures as they will apply to the pilot area and species;
- examples of how ABS can function to benefit rural residents and local communities (information which can be shared to encourage uptake and participation in connection with ABS), developed and implemented in a gender sensitive and broadly participatory manner;; and
- experience with how ABS functions under the test frameworks in the pilot/demonstration jurisdictions, which will inform the framework development processes under Outputs 1.2, 1.3 and 1.4.

Table 3: Summary of pilots

ID	Pilot name:	Location of pilot:	Focus (GR, ATK)
1	Dendrobe	Xishuangbanna Prefecture, Yunnan Province	GR and ATK
2	Dai Ethno-medicine	Xishuangbanna Prefecture, Yunnan Province	TK
3	Luohanguo (<i>Siraitia grosvenorii</i>)	Guangxi Zhuang Autonomous Region	GR/derivative/ATK
4	Golden Camellia	Guangxi Zhuang Autonomous Region	GR
5	Xiangxi black pig	Xiangxi Prefecture (Hunan Province)	GR
6	Xiangxi Tea	Xiangxi Prefecture (Hunan Province)	GR and ATK

128. In addition to the pilot legislation and negotiations themselves, this component will support an enhanced understanding of genetic resources and associated traditional knowledge, related ABS

opportunities and associated barriers, which will be essential in providing a pipeline of additional work and opportunities related to ABS work in the provinces, while highlighting the nature and extent of such opportunities.

129. Toward these ends, the pilot demonstrations will undertake intensive efforts at identifying and analysing available GR and ATK and their potential uses (Output 3.1); developing pilot/demonstration legislation addressing the manner in which the pilot negotiations will be conducted and overseen; (Output 3.2); promoting the negotiation and implementation of particular ABS agreements in the pilot/demo jurisdictions in compliance with test legal frameworks (Output 3.3) and deriving and documenting the results and lessons learned (Output 3.4). These outputs are further described below.

Output 3.1: Enhanced understanding of genetic resources and associated traditional knowledge, related ABS opportunities and associated barriers in Hunan and Yunnan Provinces and Guangxi Autonomous Region

130. Necessary information for successful functioning of ABS depends on information, including: (i) the nature, extent and value of resources available, (ii) the current status of each resource, (iii) its current uses; (iv) the sustainability of the resource and the ecosystem or knowledge base in which it exists, (v) the actual currently known potential for development of that value (including known uses and abilities, interest of existing users, willingness to pay and other factors); (vi) the existence of users who have or may become interested in developing that known potential;(vii) a credible analysis of potential future uses; (viii) the current regulatory environment regarding ABS; (ix) gender-related factors that may impact the equitable nature of benefit-sharing; and (x) the current level of interest of the local population, in ABS transactions, conservation or other key matters. Analysis of these factors is necessary, following the best practices used for decision-making regarding setting up any commercial enterprise.

Detailed surveys covering Yunnan Province, Hunan Province and Guangxi Zhuang Autonomous Region on the species and ATK related to the six pilots for demonstration and extension, building on PPG analyses to identify users and providers; benefits; existing and emerging uses of genetic resources and other related activities

131. Relevant, professionally conducted feasibility studies and other surveys will enable the pilot-demo jurisdictions to scale up their ABS processes throughout Yunnan Province, Hunan Province and Guangxi Zhuang Autonomous Region on the basis of sufficient information to support decision-making, enable outreach to potential users and identify practical and useful preparatory activities that will help streamline the PIC, MAT, ABS contract, permit and registration processes, without either building unrealistic expectations or creating unnecessary obstacles.

Develop implementation plan for the ABS framework or institution covering human resource, coordination, technical, legal, information and other needs / requirements for fully operationalizing an ABS mechanism throughout the three provinces

132. Implementation plan will be developed covering human resource, coordination, technical, legal, information and other needs / requirements for fully operationalizing an ABS mechanism throughout the three provinces

Analyse coordination, technical, human resource, legal, information and other barriers to fully operationalizing an ABS mechanism in the three provinces

133. Through a careful analysis of the availability and capacity of necessary personnel and infrastructure, and realistically assessing the legal, informational and other institutional barriers that

might operate as obstacles to users seeking to obtain ABS agreements, the pilot-demo jurisdictions will be able to begin their implementation of their test ABS frameworks, and initiate or support the initiation of particular ABS negotiations and processes efficiently and effectively.

Output 3.2: Create the legal foundation for institutional arrangements and procedures that will govern ABS in the pilot areas

134. The success of the work under Component 1 (Establishment of a national regulatory and institutional framework on ABS) will be closely tied to the success of the experience with ABS negotiations and oversight in China that will be developed under Component 3. In order for these demonstrations to provide the maximum useful experience, they will need to operate under pre-established demonstration legislation and institutional arrangements and be carefully overseen.

135. The most valuable pilot/demo negotiations are those that provide practical examples of how the overall ABS framework would work in practice. Thus, when a demo involves negotiation of a contractual-type relationship to support creation of a framework that would mandate such relationships, this would mean that the demo negotiations should themselves operate under a legal mandate, thereby providing experience with how negotiations under such a mandate would go forward, what obstacles and unexpected results occur, and other factors. Accordingly, activities under this output will focus on setting out, mandating and overseeing the specific institutional responsibilities in each province, region or other governmental level at which the pilot will operate, creating the legal foundation for the demo negotiations (including record-keeping and operational arrangements to support the pilot/demo activities) and the all important development and provision of mechanisms and guidance for the users and providers who will participate in the negotiations of pilot/demo ABS contracts, in all cases identifying and addressing gender-sensitive issues that may affect the equitable aspects of the ABS framework as implemented.

136. This project proposes to use subnational pilot/demonstrations as a primary means of gaining the experience with ABS practices that will be an essential input into the development of legislation at the central level, thus creating a “chicken and egg” situation regarding whether the pilots can be undertaken in a timely fashion. To circumvent this problem in a legally responsible way, it will be essential that all pilots operate through legislation that is adopted either: (1) at the provincial/regional level (provinces do not have the same restriction regarding taking non-mandated action) or (2) by a prefectural or lower level governmental unit – that is, a prefecture or county that has been formally designated as “autonomous” by virtue of the fact that its population is composed primarily of members of ethnic minorities. Such autonomous governmental units have the legally protected ability without pre-existing national and prefectural legislation. In all pilots, the project will depend on rapid adoption of the pilot demonstration legislation, and responsible authorities in the selected provinces/regions and autonomous prefectures or counties are cooperating in preparation to act quickly when the project commences.

Establish institutional responsibilities for each demo

137. This activity area would formally determine inter-sectoral coordination responsibilities, including by establishing coordinating mechanisms and facilitating discussions through which the agencies participating in the project and other agencies that may be involved in or affected by ABS implementation the particular responsibilities of the demo negotiations and the implementation of the pilot/demo ABS agreements, agree on their respective functional responsibilities. It is possible that this process may include the establishment of an ad-hoc committee that can provide input through the pilot/demo processes and/or that a permanent committee of this type will be set up.

Establish an operational mechanism and procedures for negotiation and processing related to ABS applications and documentation

138. Although one of the demo provinces (Yunnan) has initiated efforts to develop a provincial ABS framework, the other two have not. This indicates that work on developing the operational/legislative support for the pilot/demo activities may potentially have to operate in rather different legislative environments. If, at the time of the demo/pilot activities, the province/region or other jurisdiction has ABS legislation in place, it will be essential for the demo/pilot to comply with that legislation, but also to analyse it and determine what long-term/permanent and/or interim measures will be necessary in order to enable and maximise the value of the pilot/demo negotiations.

139. Depending on a number of factors, including especially input from the other demo/pilot jurisdictions, the development and adoption of supporting measures and procedures for demo/pilot activities (test legislation) in jurisdictions with no existing ABS legislation or plans for such legislation may either follow the lead of the Yunnan measures, or else develop their own approaches.

140. Regardless of how it is approached, the test legislation adopted by each pilot-demo jurisdiction will need to specify (at minimum) the following: (i) the process and coverage of PIC, if and where required, (ii) the basic contents of MAT (including identification of which elements are subject to negotiation and on which a fixed provision must be adopted), (iii) the particular agency or official that will be responsible for advising and/or overseeing the ABS process, including how that agency or official is notified and what its role will be, (iv) the specific documents or forms that will be filed to enable oversight, monitoring and implementation of the ABS arrangement, (v) the manner in which benefits shared shall be transferred and documented.

141. Adjunct to the development and adoption of test legislation will be the adoption of guidance or support programs to enable local providers and officials to more effectively understand and participate in the negotiation of ABS documents.

Interim stakeholder support mechanisms

142. Stakeholder support is another critical prerequisite of any ABS negotiations. Most users and providers have little or no awareness of ABS, and even those that are aware frequently misunderstand its meaning. This is also often true of government officials involved, particularly when the responsibility for government oversight of ABS transactions is widely decentralised (*i.e.*, made the responsibility of the lowest most localised levels of government.)

143. The need for stakeholder support for all three groups – users, providers and government officials – is particularly pronounced at the pilot/demo level. Accordingly this activity will mechanisms to support user-provider and other stakeholder relations, including the development of a generic guidance document on sub-national institutional arrangements for ABS based on lessons derived from pilot province activities. It will focus on identifying, developing and providing guidance and support mechanisms to all users, providers and government officials that may potentially be involved in the negotiation, implementation or oversight of the pilot/demo ABS contracts. It will give due attention to the role of gender in ABS issues, and to the factors that may affect the fair and equitable processes in that context.

Output 3.3: ABS agreements negotiated and implemented across Hunan and Yunnan Provinces and Guangxi Autonomous Region (including examples from medicine, healthcare and others) in the pilot-demonstration jurisdictions

144. The primary focus of this output will be the negotiation, procedural compliance, documentation, government approval and practical implementation of ABS contracts in the pilot-demonstration jurisdictions. This Output will involve the practical utilisation of test legislative frameworks and implementation guidance developed under Output 3.2, above.

145. The project will provide targeted support in piloting ABS agreements in a manner that is compliant with the NP. The pilots that have been identified are located in three Province/Regions, each of which is known to be highly biodiverse: Yunnan Province, which has already commenced the development of its own ABS framework; Hunan Province; and Guangxi Zhuang Autonomous Region. The pilot jurisdictions, as well as the species and location to which each will be addressed, are listed above in **Table 3. Box 1** provides a summary of the particular target species and activities under this component. Finally, **Annex 1** provides additional details in the form of ‘Pilot fact sheets’.

146. As shown, two of the pilots, Dai Ethno-medicine and Dendrobe orchid will be regulated by demonstration legislation at the provincial level in Yunnan Province in coordination with work at the level of Xishuangbanna Autonomous Prefecture. Two other pilots, Luohanguo and the Golden Camellia, will be regulated and overseen at the prefectural/regional level by Guanxi Autonomous Region. Finally, two pilots in Hunan Province -- the Xiangxi black pig and Xiangxi tea – will be regulated and overseen at the prefectural level by Xiangxi Tujia and Miao Autonomous Prefecture.

147. The pilots will focus on specific ABS situations, generally described by reference to a particular species or type of resource. Thus, four of the six demos will focus on particular plants and one on a particular mammal with the sixth focusing on specific examples of an entire resource category (traditional medicine) in a very localized context. Five of the pilots involve particular genetic resources (GR), and five involve specified “traditional knowledge associated with genetic resources” (ATK.) While most pilots involve both GR and ATK, one involves GR only and one involves ATK only.

148. The differences among the pilots in terms of their contents, parties, locations and other factors will provide a range of experience useful to the development of Components 1 and 2, while their similarities in output and approach will also provide useful data.

Table 3: Summary characteristics of pilots

Pilot and location	a. R&D Activities	b. Genetic Resource (GR) or Derivative (D)	c. ATK	d. Supply (“value”) Chain
1 Dendrobe Xishuangbanna Prefecture, Yunnan Province	Development of products based on the dendrobe’s medicinal and cosmetic possibilities: research and development to isolate the chemical compounds of dendrobines, stibenolids, sesquiterpenoids, coumarins and polysaccharides, to use as new medicines.	Dendrobines, stibenolids, sesquiterpenoids, coumarins and polysaccharides	Closely associated traditional knowledge (uses of the species in traditional medicine) of the Dai, Hani, Nafu minority group	The species has already been domesticated agriculturally (specimens from the wild have been multiplied and are being grown in agricultural settings.) The Pilot proposes to support ABS negotiations and processes at all levels of this supply chain (germplasm providers, farmers, extract processes, commercial R&D, other users, etc.)
2 - Dai Ethno- medicine, Xishuangbanna Prefecture, Yunnan Province	Development of medicinal products based on species and knowledge: research on collection, organization and database for traditional Dai Medical and Medicine and research to find the active ingredients from the traditional medicines, following the traditional practice of local communities in resident areas of Dai Ethnic Group	GR and D (specific species to be used will depend on users’ decision/selection) According to the folk records, more than 100 prescriptions are special for cancers, and more than 300	Traditional medicinal knowledge that is closely associated to species to be provided by the Dai community Dai traditional prescriptions are mostly from folk	Depending on particular species involved: in cases where no agricultural supply chain exists, the pilot is expected to set one up (sustainably collect and multiply a limited number of wild specimens and contract with local farmers). In all cases, ABS negotiations and processes will apply to all levels of the supply chain (as above.) The first step is to collect traditional prescriptions and therapies from local communities and families by

Pilot and location	a. R&D Activities	b. Genetic Resource (GR) or Derivative (D)	c. ATK	d. Supply (“value”) Chain
	<p>Based on the folk prescriptions and old famous Dai doctors’practice medicine, the researchers will focus on: 1) ‘Boyan’ (famous old Dai doctor) medical system, in order to develop medicines special for cancers; 2) ‘Kanglangxiang’ (another famous old Dai doctor) medical system, in order to develop therapies special for rheumatic diseases. lumbar spondylosis, diabetes mellitus, senile diseases, gynaecopathia, etc</p>	<p>prescriptions are special for rheumatic diseases. As the majority of the prescriptions are compounds containing several herbs or more than 10 herbs, therefore, over 300 herb and animal species (associated genetic resources) will be involved in the prescriptions.</p>	<p>(local communities or families), altogether up to 7,000; Dai traditional therapies are also from Dai folk and old Dai doctor families’ transmission (one generation to generation), such as fumigation, sleeping, suppository and packing are among the famous Dai traditional therapies.</p>	<p>agreements. The second step is to organize and analyze the traditional knowledge and screen for the most efficient ones. The third step is to research the active compounds and develop the medicines. The fourth step is clinical tests. And the last step is production and commercial use in the local Dai hospitals by official approval. Now the Dai Medicine Institute has already developed 43 medicine preparations and new R&D program will aim to surpass 100 medicine preparations.</p>
<p>3 - Luohanguo (<i>Siraitia grosvenorii</i>), Guangxi Zhuang Autonomous Region</p>	<p>Development of uses of Luohanguo for medicinal or cosmetic use and as a food additive (sweetener): Research and development for isolating chemical compounds of triterpenes (such as mogroside I, II, III, IV, V) , to use as beverage products; and isolating chemical compounds of flavonoid constituents (such as grosvenori-ne II), to use as new medicines</p>	<p>Triterpenes (such as mogroside I, II, III, IV, V) , to use as beverage products; and compounds of flavonoid constituents (such as grosvenori-ne II), to use as new medicines</p>	<p>Closely associated traditional knowledge (uses of the species in traditional medicine) of the Zhuang minority group</p>	<p>To the extent that insufficient agricultural supply chain exists, the pilot is expected to set one up (sustainably collect and multiply a limited number of wild specimens and contract with local farmers). At all events, ABS negotiations and processes will apply to all levels of the supply chain (as above.)</p>

Pilot and location	a. R&D Activities	b. Genetic Resource (GR) or Derivative (D)	c. ATK	d. Supply (“value”) Chain
4 - Golden Camellia, Guangxi Zhuang Autonomous Region	<p>Research into and development of products based on additional health related qualities of and compounds found in the Golden Camellia: R & D to extract chemical compounds of micro-elements, amino acids, vitamin, tea polyphenols, tea polysaccharides, flavonoids, glycosides, to use as beverage and medicines.</p>	<p>Amino acids, vitamin, tea polyphenols, tea polysaccharides, flavonoids, glycosides, to use as beverage and medicines.</p>	<p>Local communities and people have a custom to use the flowers of Golden Camellia as a special beverage as tea. So the flower tea culture has a long history and a lot of traditional technologies exist for the flower tea processing.</p>	<p>Golden Camellia is an endemic species in Guangxi Autonomous Region, located in border area neighbor to Vietnam. It is an rare and endangered species under the list of protection nationally. Much effort has gone into ensuring the protection of this very rare endemic species in the wild, while developing a sustainable agricultural protection system. This pilot will include the Protected area authority as original provider, the farmers who currently produce the camellias agriculturally, the collectors, the processors, the researchers and other users.</p> <p>Substantial researches has been conducted on the flower tea for identification of the chemical compounds and several important healthy ingredients have been found and a commercial uses are expected to follow.</p>
5 - Xiangxi black pig, Xiangxi Prefecture (Hunan Province)	<p>Research into genetic improvement/breeding of new varieties of Black pig, based on the health qualities of the meat products they produce: research on genetic diversity, reproduction characteristics and breeding technology for new varieties; on nutrient ingredients of muscle composition for healthy meat products development..</p> <p>Description below is for the next volume of genetic resources:</p> <p>“Xiangxi black pig is an endemic pig variety with fine characteristics for field raise and good meat quality, especially for smoking bacon. Therefore, the black pig was listed as the national protected pig variety for genetic diversity conservation in 2006 by Ministry of</p>	<p>Genes that code for nutritious meat and capacity of improved black pig varieties to adapt to extreme environmental conditions</p>	<p>Farmers’ Rights (locally developed traditional subspecies) of the local communities in the Xiangxi Autonomous Prefecture.</p> <p>Xiangxi black pig is an indigenous variety domesticated by local Tujia and Miao ethnic people from wild pig, and a lot of traditional technologies for pig raising and meat processing and storage have been developed over this long history. Also</p>	<p>The development of stronger subspecies and hybrid vigor, using only locally grown animals from within the Autonomous Region will produce animals to be grown in the region, in addition to other genetic research results. This pilot will involve local farmers, communities and breeding programs, as well as users in ABS transactions.</p> <p>The relevant companies have invested in developing the black pig’s industry. The first step is to collect original pig stock from local farmers; the second step is to find the special nutritional ingredients by research; then the companies, based on the pig’s genetic resources and ATK, develop the breeds by purification and rejuvenation to increase genetic diversity. Finally the improved varieties from traditional breeding will be used for commercial meat production.</p>

Pilot and location	a. R&D Activities	b. Genetic Resource (GR) or Derivative (D)	c. ATK	d. Supply (“value”) Chain
	Agriculture (No. 622 Document)		the black pig and its cured meat are associated with many aspects of local traditional culture	
6 - Xiangxi Tea, Xiangxi Prefecture (Hunan Province)	<p>Research into and development of new products and other benefits, based on the particular antioxidant and biochemical properties of two specific varieties of Xiangxi tea: Research on chemical ingredients of amino acids, tea polyphenol, catechol, caffeine, etc. in the tea varieties, for human health.</p> <p>The Huangjin Tea is a old tea variety domesticated by the ancestors of Huangjin Village 400 years ago and it was a tribute for emperor in the history. So it is a rare genetic resources for tea production.</p> <p>The Guzhang tippy tea is also a famous tea variety. As a precious genetic resources, Guzhang tippy tea was listed as one of 10 most famous tippy tea in China.</p>	Amino acids, tea polyphenol, catechol, and caffeine.	<p>ATK of the Miao People, closely associated to the selected varieties.</p> <p>The local minority people (Tujia and Miao) have a close linkage with tea. Their living and culture are associated with tea’s cultivation, processing and production Therefore, a lot of traditional knowledge, innovation and practice on tea exist.</p>	<p>The species involved have already been domesticated agriculturally. The Pilot proposes to involve ABS negotiations and processes at all levels of this supply chain (as above.)</p> <p>Tea production is a major industry in the Xiangxi ethnic area. However, there is a big competition for tea sale and trade in whole country. Therefore, tea’s quality is very important for their local people’s income and livelihoods. The pilot will focus on innovation of new products with better healthy ingredients for market competition, playing an important role in local economy.</p>

149. The pilot agreements being developed under this output (see Box 1 below) are designed to elicit lessons learned regarding the applicability of particular procedures and pilot legislation to the complete process of ABS negotiations. This result is best achieved where those negotiations proceed in a relatively “normal” way – that is, where they begin with the government’s investigation into the availability of possibly interesting genetic resources, after which potential users either arise through their pre-existing interest or are identified by the relevant agency or community. These initial steps will be followed by a clarification and documentation process, and the negotiation of the parties’ particular rights, duties and agreement. If these matters are all pre-determined (essentially pre-negotiated) prior to the commencement of the pilots, then the value of those pilots to provide lessons and reflect the usefulness of the processes being piloted is reduced. Accordingly although initial efforts have identified potential users who might participate in the pilots, and particular genetic

resources that have been thought to be of potential interest, it has not gone through the steps of preliminary bioprospecting/analysis to determine particular compounds of interest or to pin the users down to particular research elements or directions. It has neither required of the users that they undertake cost analyses, given that such analyses are elements of the negotiation process, as well. These activities will be essential component of the pilot negotiations.

150. Box 1 below provides basic information about the particular species to be addressed in the pilots – species in which there is known interest and general confirmation that particular genetic characteristics or biochemical compounds which appear to be of potential interest to users.

Box 1: Summary of the proposed pilots

The following are brief summaries of the six pilots.

Pilot 1: The Dendrobe Orchid

The *Dendrobium* orchid (known as “Shihu” in Chinese) has long been recognized for its unique properties and use as a treatment for stomach and kidney disorders and also for diabetes (Compendium of Materia Medica, at pp. 254-255). Locally, it is also recognized to have curative properties in regard to vascular conditions such as phlebosclerosis. Initial chemical analysis confirms that dendrobium contain a number of compounds of potential interest, including their own chemical compound of Dendrobine and natural generation of other more than ten kinds of elements that are beneficial to human health, as well as high levels of polysaccharides and amino acids. The presence of anti-tumorals (Chrysotoxene and Erianin) was also noted. Local entrepreneurs have begun processing dendrobe extracts for consumption in a variety of forms, including granules, lozenges, capsules and other boluses, wine, tea bags and other beverages, currently focused on the local market. In addition, one company is focusing on developing the components of dendrobe reproduction (agriculture), including seedlings for commercial marketing. One other company’s use of the dendrobe focuses on its fragrance, extracting esters as either raw materials or semi-manufactured goods for sale to foreign manufacturing companies. The opportunity to further explore the uses and properties of dendrobium is significant.

Pilot 2: Dai Ethno-medicine

The Dai Ethno-medicine pilot offers a classic example of how traditional knowledge associated with and traditionally held GR join together to become a desirable resource from the perspective of any company seeking to develop medicines, health-foods, food additives, cosmetics or other products that address known physical needs of people or animals. It also provides a useful example of the two most important challenges of applying ABS to traditional knowledge, specifically,

- (i) the need to ensure equity not only in terms of the parties to this particular ABS transaction, but also to the rest of the Dai people, who all may arguably have some interest in the Dai traditional medical knowledge,
- (ii) the need to address the fact that users may have gained access to this knowledge from a book, without contacting or consulting with any Dai community or individual.

Through Pilot 2, the Dai Community of Xishuangbanna will be assisted in finding and negotiating with one or more companies (including possibly the Xishuangbanna Institute for Ethno-medicine and its affiliated hospital; Yunnan Baiyao; Yangtze Pharmaceutical; the Beijing Institute of Technology and Shanghai Jiaotong University) that seek to develop medicines from among the various Dai medicinal plants that are included within the ten Dai traditional healing techniques (e.g., “Hongya” (steaming treatment), “Nuanya” (sleeping drugs treatment), “Aya” (cleansing drugs treatment), “Nanya” (sitting drugs treatment), “Shaya” (acupuncture treatment), “Guoya” (wrapping drugs treatment), etc.), guided by Dai traditional knowledge, and share benefits (including scientific results and production know-how) with them.

Pilot #3: Synthesis Luohanguo (*Siraitia grosvenorii*)

Compilations of Chinese Traditional Medicine underscore a variety of uses for *Siraitia grosvenorii* to cure a number of diseases, such as cold, cough, sore throat, intestines and stomach discomfort, and for blood purification. More recently, however, scientific investigation has discerned another use (or possibly another aspect of its traditional use): It is a plant that is extremely sweet, possessing a very high proportion of glycosides, which are, moreover not sugars. As such it has a potentially important role in medical treatments relating to diabetes and obesity, and also in the development of a naturally derived low-calorie sweetener. While the traditional medicinal uses remain important and companies continue to have an interest in

production of such extracts, in the form of capsules, liquids, pills, mixtures and granules for medicinal use, as well as the marketing of these extracts as “healthcare beverages,” others have taken an interest in producing extracts for export.

Pilot #4: Golden Camellia

The Golden Camellia (*Camellia nitidissima*) is a relatively rare flower, that is included in the IUCN Red List of Endangered Species. Approximately 90% of the remaining flowers in the wild are found in a relatively limited area within the Guangxi Zhuang Autonomous Region. Within that area, the camellia has a traditional use as a beverage – a use that has become known and desirable throughout China. Recognizing the potential challenges of ensuring the camellia’s sustainability while encouraging the development of the market, Guangxi designated the entire area in which most of the extant wild camellias are found as a State Nature Reserve. Most of this reserve is a strict protection area, from which no collection of camellias is permitted. The remainder includes areas in which the staff of the reserve have obtained and multiplied camellia germplasm, which they have provided to a number of local companies which multiply and cultivate the camellias ex situ, without any further need to return to the Nature reserve.

In recent years, inquiry into the other properties of the golden camellia stimulated interest in the potential utilization of it for its biochemical properties. This inquiry was originally inspired by the local belief that drinking the infusion of golden camellia has health benefits, prompting research into a biological confirmation/explanation of such benefits.. Reportedly over 400 unique compounds have been identified in this process, suggesting potential new uses including as a blood pressure prophylaxis and as an ingredient in cosmetics.

Pilot #5: Xiangxi Black pig

Throughout Xiangxi Prefecture, traditional rural farming communities raise Xiangxi Black Pigs, a variety known for the excellence of the bacon and other cured meats produced. Each individual community’s pigs, however, were facing a decline in the quality of breeding stock, owing to the fact that each community’s selection pool was limited to pigs within that community. The arrival of public and private companies whose goals included strengthening the gene pool of the Xiangxi Black Pig, primarily through carefully monitored interbreeding of specimens obtained from all of the communities raising Xiangxi Black Pigs has, in effect, rescued the species and local farming communities from the consequences of this decline. It is an ongoing process and one of great importance in China, where addressing the diminution of the number and variety of agricultural species has been identified as a governmental priority.

Pilot #6: Baojing Golden tea and Guzhang Tippy tea

These two varieties of China’s most important agricultural product have been chemically examined and shown to include high levels of amino acids, Theaflavin (an antioxidant polyphenol). The development of these biochemical and genetic properties will form the basis of a pilot that will provide important examples for China’s other genetic resource legislation, given that, like many other traditionally developed agricultural varieties in China, the germplasm that was originally used in the development of Baojing Golden Tea and Guzhang Tippy Tea can, in each instance, be traced back to a particular tree.

Pilots may be adjusted during the 5-year project implementing period, and are not limited to the above six. More pilots may be added to the demonstration based on their contributions and value to the project outcome. If a pilot is considered more appropriate, it may substitute a proposed one.

Using a participatory process, including the key stakeholders involved, the key prerequisite elements (PIC, MAT) of each planned ABS agreement are completed in compliance with the test framework of the relevant pilot-demonstration jurisdiction

151. The PIC and MAT processes are essential prerequisites of any ABS arrangement under the NP, and their contents, procedures and outputs will be specified in each pilot-demonstration jurisdiction’s test legislation. Careful compliance with these procedures will provide significant benefits, in the form of informing and protecting the particular providers in each ABS transaction and also providing on-the-ground experience with the functionality of the test legislation and its procedures on these matters.

Negotiate and reach agreement on each ABS arrangement in accordance with the demonstration regulatory instruments

152. The negotiation of the specific ABS contract is the point in each ABS transaction at which the process reflects the uniqueness of each contract, and addresses issues that are not necessarily of universal application. As such, this element of the negotiation is the most difficult to predict or to provide materials for. This activity will utilise adjunct materials developed under Output 3.2 as a primary tool in conjunction with assistance and advice from the project team, in order to support each particular negotiation, and will keep careful records of the negotiations, including both challenges and successes.

Record-keeping and, as appropriate, issuance of internationally recognized certificate

153. In accordance with the test legislation in the relevant pilot-demo jurisdiction, the participants in each successfully completed ABS negotiation will complete and submit all relevant documents that have been identified as appropriately part of the record-keeping/monitoring process, and fill out all appropriate forms. The project team will keep careful records of this process and the entry of the documents in the necessary files and databases to enable proper monitoring and oversight. Specific challenges and successes with regard to the record-keeping and monitoring documents will be carefully noted.

Monitor and oversee execution of ABS agreements, with associated capacity building support

154. Although it is unlikely, based on experiences of other countries, that an ABS agreement can both be negotiated and produce benefit-sharing within a single five-year period, that time period will be sufficient to determine how monitoring and oversight of ABS agreements will function, and to identify the need for and undertake particular capacity building among officials and agencies charged with these responsibilities.

Output 3.4: Lessons and experiences in implementing local ABS regimes are documented and disseminated for replication, based on the project's replication plan

155. The continuing need for awareness and capacity-building programmes relating to ABS is well established. The concept is not well known, and is difficult to understand. Even after the current groups of relevant officials and key stakeholders have been thoroughly trained, the natural attrition of such persons, as they move to other positions or regions is only one reasons that continuous sharing of knowledge, understanding and lessons learned is essential.

Capture lessons learned during implementation of pilots

156. The project will maintain close observation of, and provide detailed advice and support to, the ABS negotiations carried out in the pilot jurisdictions, and will prepare detailed reports of all such activities. These reports will be synthesised into useful records of the various challenges faced, the manner in which they were addressed, and the result achieved.

Prepare analyses based on lessons learned

157. Following the completion of outputs 3.2 through 3.2 in each pilot jurisdiction, a report will carefully analyse the experience gained, challenges identified and lessons learned, and will provide specific examples of individual experiences. These reports will be integrated into an analysis of the lessons learned in this component, which will, in turn, inform the development of training materials pursuant to Output 2.2, above.

Drawing on findings of Outputs 3.1 and 3.3, develop provincial/regional action plans, including support mechanisms that identify priorities and opportunities for replication and expansion of ABS into pilot and new sectors

158. Once a particular pilot demonstration jurisdiction has commissioned and receive the feasibility study under output 3.1 and applied it under Output 3.2, it will be possible to use the accumulated knowledge to expand its ABS programme. Moreover, the lessons learned through these processes will enable much of this accumulated knowledge to guide the further extension of the pilot-demo processes into other provinces/regions or other jurisdictions. Further study shall be conducted regarding the possibility of such extensions and planning their scope and processes.

Disseminate lessons learned, including ensuring they are taken account of in development of national ABS Framework and that other provinces across China learn and begin to apply ABS concepts and practices

159. Through a series of workshops, training the trainers programmes and other activities, and utilising the materials developed under Output 3.3 and 2.2, the lessons learned under Component 3 shall be disseminated throughout China, enabling the country to move rapidly into a state of full functionality with regard to ABS.

PROJECT INDICATORS

160. The project framework is designed on the following assumption: that the careful development and implementation of a national ABS framework (Component 1) when based on experience gleaned from rigorously controlled and overseen pilot transactions (Component 32) and supported by targeted, effectively presented and well-documented capacity-building tools (Component 2) also based on that experience, then the project objective of a stable, functional and robust national ABS program in China will be achieved or significantly promoted.

161. The choice of indicators was based on two key criteria: (i) their pertinence to the above assumption; and (ii) the feasibility of obtaining / producing and updating the data necessary to monitor and evaluate the project through those indicators. In light of the above, Table 4 presents the project's key indicators:

Table 4 – Key Project Indicators

Objective/ Outcome	Indicator	Baseline	End of Project target
Objective: To develop and implement China's national framework on access to and benefit sharing (ABS) of genetic resources and associated traditional knowledge in	Nagoya Protocol accession enabled	China has neither signed nor ratified the Protocol in any way	All prerequisites completed to enable accession to the Nagoya Protocol
	Status of adoption and/or implementation of the National ABS Framework at national level	No framework, in place. Some individual laws identify specific types of GR in ways that could be coordinated with, or integrated into, a national ABS framework.	National ABS regulatory framework in compliance with the Nagoya Protocol established and operational at a national level

Objective/ Outcome	Indicator	Baseline	End of Project target
accordance with provisions of the Convention on Biological Diversity (CBD) and the Nagoya Protocol (NP)	Status of adoption and/or implementation of the National ABS Framework at sub-national levels	No framework in place and no pilots implemented to date.	National ABS regulatory framework implementing legislations or other measures established and operational through six pilots operating in three pilot provinces / regions and guidance provided to other provinces and regions regarding establishment and implementation of frameworks to implement the national framework
	Incentives for biodiversity conservation	Despite countless instances in China of traditional knowledge being associated with genetic resources, such cases fail to provide any additional economic incentive for local communities to conserve those resources	Publicized cases and examples of local communities benefitting from associated traditional knowledge lay the foundation for wider replication and uptake
Component 1. Establishment of the National Regulatory and Institutional Framework on ABS	Elements (policy, legislation, guidance) of a national framework	No elements necessary for creation of a primary ABS Framework in place, although, as noted above, some legal provisions addressing or mentioning GR or ATK exist in other legislation.	National framework instruments (policy, legislation, guidance, as and if determined to be needed) are adopted and coordinated with existing legal provisions addressing GR and ATK
	Incentive programs and codes of conduct for major commercial sectors	No such documents (formal or informal) in place for any sector.	Incentive programs and codes of conduct for at least three major commercial sectors (e.g. forests, marine, agriculture, traditional medicine, cosmetics, pharmaceuticals, etc.) prepared with the participation of sectoral stakeholders and [adopted by] key stakeholder organizations.
	Guidance for adoption of relevant sub-national legislation	No guidance instruments have been developed	Templates and guidance for the adoption of relevant legislation, and/or guidance at provincial/ regional and lower levels of government approved
	Instruments and mechanisms necessary to formally establish elements of the national framework	No such instruments or mechanisms (formal or informal) in place. Databases including information potentially relevant exist but are not coordinated	Instruments necessary to formally establish all elements of the national framework (e.g. PIC and MAT procedures, certificates of compliance (as appropriate), national ABS clearinghouse and other monitoring and oversight mechanisms) are adopted and relevant systems, mechanisms and databases are developed and/or coordinated.
Component 1.			

Objective/ Outcome	Indicator	Baseline	End of Project target
Establishment of the National Regulatory and Institutional Framework on ABS (cont.)	Guidance documents re. elements of the national framework	No such instruments (formal or informal) in place.	Guidance documents on elements of the national framework, i.e. PIC and MAT, ABS contracts and their negotiation, completion and use of certificates of compliance (as appropriate), and access to the ABS Clearing-House, are adopted and widely available
Component 2. ABS capacity building and awareness-raising	National-level institutional capacity for ABS implementation	No existing experience or training materials related to ABS and associated transactions	Case studies and training material on the basis of the pilot/demos and the legislation, procedures and contracts developed and incorporated into staff training programs
		MEP: 30 out of 69 (43%) on UNDP ABS Capacity Development Scorecard	MEP: 53 out of 69 (77%) on UNDP ABS Capacity Development Scorecard
		Very few staff within implicated national-level agencies have more than a basic awareness of ABS	An adequate number of personnel of national-level agencies involved with ABS implementation are able to perform ABS-related functions successfully. (Note: Definition of 'adequate' to be based on Framework)
	Provincial-level institutional capacity for ABS implementation in Yunnan Province, Guangxi Autonomous Region and Hunan Province	Yunnan Province: 16 out of a possible 69 (23%) on UNDP ABS Capacity Development Scorecard	36 out of 69 (52%) on UNDP ABS Capacity Development Scorecard
		Guangxi Autonomous Region: 11 out of a possible 69 (16%) on UNDP ABS Capacity Development Scorecard	27 out of 69 (39%) on UNDP ABS Capacity Development Scorecard
		Hunan Province: 11 out of a possible 69 (16%) on UNDP ABS Capacity Development Scorecard	27 out of 69 (39%) on UNDP ABS Capacity Development Scorecard
	Component 3. Pilot demonstrations on ABS	Understanding of local ABS opportunities at the level of pilot provinces and jurisdictions	Scattered and partial information exists but is not easily obtained and used
Quantity and nature of ABS agreements in China		Some informal oral agreements exist related to benefit sharing	At least six ABS agreements in compliance with NP in place
		No experience with PIC, MAT and ABS contracts.	Among the six agreements above, at least four will include PIC and MAT with local communities

Objective/ Outcome	Indicator	Baseline	End of Project target
		Key bio-industries lack any ABS experience or examples	Among the above six agreements, there should be one or more in each of the following areas: medicine and medicinal practices food and beverage products. (Note: some agreements may cover more than one area.)
	Jurisdictions with ABS implementation experience	None	At least one province, one autonomous region and two autonomous prefectures have practical experience regulating ABS agreements
	Local communities benefit from GR and ATK utilization	No local communities are currently benefiting through ABS agreements	At least four of the users (companies) involved in ABS agreements have begun sharing benefits with providers (communities)
	Availability of best practice information on ABS implementation in China	No best practice information available in Chinese language	Best practice guidance on ABS processes ⁸ at national, state and local levels adopted on the basis of experience developed through the pilot/demos. and their operation.

RISKS AND ASSUMPTIONS

162. The project strategy, described in detail within this project document, makes the following key assumptions in proposing the GEF intervention:

- Baseline conditions in the selected areas can be extrapolated with high confidence level to other biodiversity rich areas and lessons learnt can be successfully disseminated.
- Increased awareness and capacity will lead to a change in behaviour with respect to the conservation and sustainable use of biodiversity in China.
- Access and benefit sharing of biological resources will become a increasingly important national priority for China as knowledge and information is made available.

163. During project preparation, risks were identified, elaborated and classified according to UNDP/GEF Risk Standard Categories⁹ and assessed according to criteria of ‘impact’ and ‘likelihood’ (see **Box 2** below). These risks and the mitigation measures will be continuously monitored and updated throughout the project, and will be logged in ATLAS and reported in the PIRs. The UNDP Environmental and Social Screening Procedure (see **Annex 3** of the Project Document) has been applied during project preparation and did not identify any significant environmental or social risks associated with the proposed project. In general, the project will contribute positively towards the conservation of biodiversity and maintenance of ecological stability, as well as towards an improved legal framework for ABS through which local communities have increased potential to benefit from bio-prospecting activities, including improved prospects for preservation of their traditional

⁸PIC, MAT, negotiation of ABS contracts, certificates (as appropriate), monitoring, compliance

⁹Includes the following eight categories: environmental; financial; operational; organizational; political; regulatory; strategic; and other.

knowledge. Specific risks identified, and associated mitigation measures, are presented in Table 5 below.

Box 2. Risk Assessment Guiding Matrix						
		Impact				
		CRITICAL	HIGH	MEDIUM	LOW	NEGLIGIBLE
Likelihood	CERTAIN / IMMINENT	Critical	Critical	High	Medium	Low
	VERY LIKELY	Critical	High	High	Medium	Low
	LIKELY	High	High	Medium	Low	Negligible
	MODERATELY LIKELY	Medium	Medium	Low	Low	Negligible
	UNLIKELY	Low	Low	Negligible	Negligible	Considered to pose no determinable risk

Table 5. Project Risks Assessment and Mitigation Measures

Risks	Rating	Preventive Measures
Controversy or other factors might delay or prevent China's accession to the NP, which could in turn delay legislative development.	High	<ul style="list-style-type: none"> MEP (with support from the project) will conduct seminars targeting legislators to garner their support for accession and the adoption of the new ABS regulatory framework. The project will prepare and present background and other substantive information to contribute to accession issues.
Ministries and government agencies potentially affected by/involved in ABS unable to agree on coordinate of relevant activities and mandates (key prerequisite to legislation)	Medium	A thorough situation analysis will be conducted to mitigate this risk; and the project will sponsor facilitated meetings to address the coordination challenge early in the project.
The Pilot/demos could be negatively impacted if targeted commercial users determine that they should not participate in the pilots.	Medium	<ul style="list-style-type: none"> The project design includes commercial-style feasibility studies in each of the demo areas, which may facilitate either (1) provision of additional information targeted users, to motivate their participation; or (2) identification of other potential pilot-users. The project will conduct extensive consultation and advocacy campaigns targeting commercial stakeholders to stimulate awareness and interest, starting with the pilot areas.
Commercial confidentiality restrictions may limit information sharing on development process	Medium	The project situation analysis relating to ABS legislative development will investigate commercial confidentiality issues and identify options and best methods encouraging information-sharing, and addressing/resolving situations in which information-

Risks	Rating	Preventive Measures
		sharing is forestalled by confidentiality concerns.
Biopiracy risks increase as specific data (ATK, genetic code, etc) is transferred and committed to writing.	Medium	The above-mentioned situation analysis will include an analysis of the effect of the existence of such databases on the risk of biopiracy and information on the most effective measures that can be taken to protect against these risks in both existing data collections and those that are planned or possible.
Delay in the complex, time-consuming Chinese legislative process may affect timely commencement or completion of other aspects of the project.	Low	<ul style="list-style-type: none"> Legislative work needed to support/authorise the demonstration/pilot processes will take place at the regional/provincial level and autonomous prefectures, which have authority to legislate, even before China has acceded to the NP or has an established in the absence of accession, national framework or policy. To the extent possible, the project will be designed so that national level legislation delays will not delay the pilot and other components.
MEP and pilot province staff may not have the benefit of a policy and regulatory environment that gives them adequate opportunity and authority to engage productively in ABS framework development and oversight. Delay in the complex, time-consuming Chinese legislative process may affect timely commencement or completion of other aspects of the project.	Low	<ul style="list-style-type: none"> Component 1 and Output 3.2 are intended to ensure that those performing the project are legally and politically supported and mandated to undertake this work. Legislative work needed to support/authorise the demonstration/pilot processes will take place at the regional/provincial level and autonomous prefectures, which have authority to legislate, even before China has acceded to the NP or has an established in the absence of accession, national framework or policy. To the extent possible, the project will be designed so that national level legislation delays will not delay the pilot and other components.
MEP and pilot province staff may not have the benefit of a policy and regulatory environment that gives them adequate opportunity and authority to engage productively in ABS framework development and oversight.	Low	<ul style="list-style-type: none"> Component 1 and Output 3.2 are intended to ensure that those performing the project are legally and politically supported and mandated to undertake this work.
Climate change is having a negative impact on genetic resources, with potential implications for ABS	Low	<ul style="list-style-type: none"> Component 1 is designed both to ensure that national ABS legislation covers all relevant activities, and that it supports and integrates with national policies and other legislative frameworks, including those relevant to climate change. As such any opportunity for the national ABS law to promote climate-protection measures will be investigated through the legislative analysis and addressed in the comprehensive drafting processes.
Risk associated with effective involvement of local populations such as producers	Low	<ul style="list-style-type: none"> Regarding the challenges of effective engagement of producers and other local populations, the project design focuses significantly on this relationship, with particular attention to the difference in the needs and

Risks	Rating	Preventive Measures
		expectations of the individuals and communities granting access to genetic resources from those of the rural farmers multiplying and cultivating or propagating the targeted species.

INCREMENTAL REASONING AND EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS

164. **Baseline trends:** the Government of China has identified the introduction of a national ABS framework consistent with the CBD's provisions as a priority and a key step in its overall programme to conserve biodiversity and promote access to genetic resources and associated traditional knowledge in a manner that engenders benefit-sharing and protects those vital resources. Many aspects of the overall concept will need to be addressed and many political and legal actions will need to be taken in order for China to be able fully to implement the CBD and the Nagoya Protocol.

165. In the absence of the GEF project, China would still consider the issue of accession to the Nagoya Protocol and continue to work towards the implementation of its obligation under Article 15 of the CBD; however, the degree of success in achieving the ABS objectives of the CBD would likely be limited. As a result, local communities, including all ethnic groups might not obtain benefits through the sharing of profits, information and/or technology, even though their genetic resources and traditional knowledge were being utilized.

166. Through this project, the Government of China aims to ensure that all parties, including local communities and ethnic minorities, share fairly and equitably in such benefits. An effective national ABS regime that will contribute towards biodiversity conservation and encourage sustainable use of biological resources is recognized as a potential tool in the process of addressing threats of, *inter alia*, ecosystem degradation, species loss and land conversion.

167. GEF investment in the proposed project will contribute to the accession to the NP, and its acceptance throughout the country. And provide well documented ABS experience and technical expert input to strengthen the completion and quality of the national framework and render supporting information-sharing mechanisms and guidance materials available. These same factors would also be likely to impact the creation, quality and effectiveness of mechanisms to receive monetary benefits from ABS agreements and to distribute or reinvest them. The project will promote coordination between inter-agency, inter-province and other governmental institutions, assist in solving potential confusion which may adversely affect the framework adoption and implementation.

168. **Lack of capacity** has been identified as a key constraint to the introduction of a national ABS regime across a wide range of stakeholders and at all levels – central, provincial/regional, prefectural, county, etc. If resources are not available to support the level of capacity building needed to bring key authorities and other stakeholders to implementation readiness in the short term, local experience and information-sharing on the development of PIC, MAT and benefit-sharing will remain inadequate. Biotechnology development and the access to an use of genetic resources and ATK will continue to be weakly regulated, leaving local communities at risk of losing out on these benefits and providing little incentive for improving the security of biological, genetic and traditional-knowledge resources at local level. Overall, the constituency and financial resources for biodiversity conservation would not advance far beyond baseline levels.

169. **Levels of awareness** among decision makers, sectoral agencies, the commercial sector and local communities, concerning the potential benefits of an effective ABS regime would continue to remain low under the baseline scenario. At the national level, there would continue to be little

understanding of ABS issues among most sectors, and even where understanding exists, the overall situation would reflect a lack of consistency and shared vision and rationale as to the objectives and practices underlying ABS.

170. The relationships between the users/ developers and local producers of those resources are therefore unlikely to include PIC, to address the rights and needs of local communities and other stakeholders, or to seek, negotiate or otherwise address the equitable sharing of benefits. There are currently no models for consultative processes involved in the development of ABS agreements, including PIC and MAT. This barrier will continue to limit the ability of all stakeholders to understand the rights involved, to comprehend the impact of the procedures required, to fully understand the provisions and implications of such agreements, and to knowledgeably negotiate regarding benefit sharing.

171. **Global Environmental Objectives:** The project intervention will achieve incremental global environmental benefits by contributing to the GEF 5 BD4 Focal Area (FA) objective (“Build capacity on access to genetic resources and benefit sharing.”) It will contribute directly to FA Outcome 4.1 (“Legal and regulatory frameworks, and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the CBD provisions”) and FA Output 4.1 (“Access and benefit-sharing agreements that recognize the core ABS principles of PIC and MAT, including the fair and equitable sharing of benefits.”) The project will establish the national legal and regulatory framework for ABS, build capacity for its implementation through a range of training, awareness and supportive information management and guidance outputs, and demonstrate best practice ABS processes recognizing the principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.

172. In terms of global environmental benefits, the project will enhance China’s national contribution towards achievement of the three objectives of the CBD (especially Objective 3 on ABS) and of the goals of its Strategic Plan. Specifically, the project will contribute towards reducing the rates of biodiversity loss in China through the following mechanisms:

- Increasing awareness of the existence, use and option values of biological resources among key audiences;
- Enabling greater economic benefits from genetic resources, thereby providing incentives for biodiversity conservation;
- Providing communities that are holders of genetic resources and associated traditional knowledge with livelihood options that result in economic and other benefits, thereby reducing pressures for unsustainable use and conversion of ecosystems; and
- Contributing to national development strategies and economic growth, reducing poverty and poverty-associated threats to ecosystem integrity.

173. As outlined above, the majority of global benefits delivered by the project will emerge over the long term through emergence of an ABS framework and resulting uptake and amplification of project results. Nevertheless, pilot sites will also deliver global benefits, as described in **Table 6** below.

174. **Alternative scenario enabled by the GEF:** The project complements baseline programmes and projects by supporting the development of the national ABS framework, and building capacity to enable its rapid and effective preparation, adoption and implementation, and streamline the processes of adopting and establishing the machinery required for full implementation of the ABS regime in line with CBD and Nagoya Protocol requirements. It will include consideration of a range of optional mechanisms related to ABS, such as the so-called community protocols for traditional knowledge and genetic resources, and if agreeing to include such mechanisms, will adopt appropriate legislation to guide and mandate the establishment of such mechanisms.

175. Intensive awareness-raising and capacity-building efforts will ensure that all concerned stakeholders understand the principles behind the ABS regime, the requirements for its implementation, and the potential benefits that can be realized. Checkpoints and authorities responsible for oversight of ABS processes will be brought rapidly to implementation readiness, and through the pilot projects, the proper negotiation and documentation of PIC, MAT and ABS agreements will be demonstrated.

176. *The results and lessons learned from the project* will be shared and contribute to global best practices on ABS, and could help other countries to develop and implement suitable ABS and conservation frameworks and modalities. These in turn can also provide useful guidance to ongoing regional and global processes related to ABS. Nationally, the project will ensure that the central, provincial/regional, prefectural and county governments, as well as local communities all gain from China's efforts to promote biotechnology, while encouraging equitable benefit-sharing.

177. Local benefits are expected to accrue to communities involved at the pilot sites, many of whom represent ethnic minorities in China. Almost all the pilots are being conducted in minority areas. For example, in Xishuangbena of Yunnan Province, where *Dendrobium* and Dai Medicine TK will be conducted, Dai People and Hani People and other minorities will be involved in the pilots' implementation, because TK and wild *Dendrobium* will be collected from local communities. Therefore, agreements for access and benefit sharing will be signed by the GR/TK owners with PIC procedures, training programs and capacity building will take place in local communities, and the internationally recognized certificates for GR/TK will be issued by government with the full participation of minority communities. Similar activities related to minorities' involvement will be undertaken in other pilots. In all cases, care will be taken to ensure that participation and benefit sharing are gender-responsive.

178. The ways in which local communities will be engaged by, and benefit from, the project are described in Annex 1 and summarized in Table 6 below.

Table 6: Socio-economic and biodiversity benefits of pilots

Pilot	Local communities / ethnic minorities benefitting	Anticipated socio-economic benefits	Global benefits
1	Dai, Hani, Lahu, Wa and Jino people	Local communities will benefit from training programs on <i>Dendrobium</i> producing and training on ABS. They will receive <i>Dendrobium</i> tissue culture, fertilizers and production infrastructure, such as plastic tents from companies, and the harvested plants will be purchased by companies. Local communities will sign agreements with companies, with possibility of becoming shareholders to the companies. Positive impact on the level of employment and agricultural income, and created stable businesses within the area.	Existing nature reserves for orchids species conservation will benefit from enhanced management by local government. Protected areas for wild <i>Dendrobium</i> habitats covering 300 ha, will be established by local government and/or local communities.
2	Dai Communities	Dai community members will receive benefits. Possible employment for local communities on diagnosis and traditional healing techniques. Local people will receive training on the	This pilot will promote biodiversity conservation through governmental policies and community agreements. Dai traditional medicines include more than 1,000 plant species, many

Pilot	Local communities / ethnic minorities benefitting	Anticipated socio-economic benefits	Global benefits
		techniques. This will have positive impacts on the level of employment, and help to create stable businesses within the area.	of which are endangered or threatened. The ABS pilot will promote the governmental policy and measures to protect the plant species and their habitats by establishing one or more protected areas covering a total of approximately 2,000 ha. In addition, artificial cultivation will be increased in order to reduce pressure on wild threatened species.
3	Zhuang, Yao, Maonan, Miao and Mulao communities	Local people will obtain seedlings and technical guidance on cultivation from the companies, and harvests will be purchased by the companies. Local communities will sign agreements with companies, with possibility of becoming shareholders to the companies. Local incomes will be increased, and local genetic resources will be well sustainable used	It is expected that habitats for wild Luohanguo will be strictly conserved with hundreds of hectares by local government's policies. Also this pilot demonstration will promote artificial cultivation of Luohanguo instead of harvesting wild Luohanguo population.
4	Zhuang communities	Local community will benefit by their harvests of the flowers being purchased at a reasonable price. And they will be encouraged to participate in the production of the flowers. Positive impact on the level of employment and agricultural income, and stable businesses created within the area.	The pilot demonstration will facilitate setting up of approximately 30 <i>in situ</i> spots for the wild Golden Camellia distributions in the around areas (outside of the nature reserve) by local government's policy and village protocol.
5	Local communities in the Xiangxi Autonomous Prefecture	Local communities in the Xiangxi Autonomous Prefecture will benefit with all their black pigs purchased at higher price than market and avoid market risks. Contribute to reduction of poverty among 2,500 households in West Hunan by an average 6000 Yuan	The pilot will promote conservation by local communities (by village agreements) of original stocks of the indigenous black pigs, up to over 1000 individuals in Xiangxi Autonomous Prefecture.
6	Miao People, Huangjin village in Baojing county etc.	Tea of local people will be purchased. This will have positive impacts on the level of employment and agricultural income, and created stable businesses within the area, and poverty reduction.	As a high value of, the Huangjin Village (origin place of Huangjin Tea Variety) will strictly conserve their old tea garden—including genetic resources for the original tea stocks—by village agreements with 30 hectares for the variety of Huangjin Tea; other local communities in the county also strictly conserve their old tea gardens (at least 20 small gardens for over 1,000 old tea trees by village agreement) for the variety of Guzhang Tea

179. The project will aim to ensure that project activities and associated benefits reaching local communities are gender equitable in their distribution. This will include special efforts to ensure that women's views are fully taken account of during all planning and consultation activities including those related to PIC.

180. **System Boundary:** This project aims to strengthen the conservation and sustainable use of biological resources in China by developing the national framework for the implementation of Access and Benefit Sharing under CBD, including raising national capacity to the stage of implementation-readiness. The demonstration pilot project activities on ABS agreements in Component 3 are more localized, focusing on specifically designated locales in Hunan and Yunnan Provinces and Guangxi Autonomous Region. Baseline and incremental costs have been assessed over the five-year life span of the project.

COST-EFFECTIVENESS

181. As one of the world's mega-biodiverse countries, China has exceptional biological and genetic resources, while its diverse ethnic minorities possess a wealth of ATK. Despite their potential commercial value—and with the exception of traditional uses by some ethnic minorities—these resources remain largely untapped.

182. Ongoing advances in biotechnology are expected to capitalize on rich components of biological diversity, which could result in the development of products such as pharmaceuticals, nutraceuticals, cosmetics, antibiotics and vaccines. A growing biotechnology industry would lend significant economic value to China's natural resources and biodiversity, while providing strengthened arguments for conservation and sustainable use of these resources, in line with the third objective of the CBD.

183. The lack of a national ABS framework and adequate capacity for its implementation are significant barriers impeding the development of an operational ABS regime regulating China's biological resources and associated traditional knowledge and the equitable sharing of benefits from such progress. These barriers may also negatively affect conservation efforts. The project aims to remove these barriers, allowing this industry to develop, providing benefits to the state, commercial sector and local communities, and strengthening arguments and motivation for biodiversity conservation. Development of the national ABS framework and demonstration of best practice PIC and ABS agreements embodying CBD's principles will also help to create a secure and transparent environment for biotechnological investors.

184. The project investment has the potential to achieve the above described range of expected global and national benefits in a highly cost-effective manner. This investment will effectively complement other, more direct conservation investments—such as those in protected area management—by encouraging sustainable use and conservation of less threatened species and ecosystems, while increasing incentives for habitat conservation. As such, it appears to provide a more cost effective alternative as compared with a purely conservation-based approach. As noted above, the approach also has potential to generate revenues. Finally, by providing sustainable livelihoods, the investment can help to further reduce pressures on biodiverse habitats.

PROJECT CONSISTENCY WITH NATIONAL PRIORITIES/PLANS:

185. The proposed project is fully in line with the country's national strategies and plans. The project is in high conformity with China's policies and strategic goals and its components are highly relevant to priority domains and actions for the next five years clarified by the Chinese Government, revealing its close linkage with sectoral plans and programs of the government. Implementation of this project is expected to receive strong support from the Chinese Government, associated competent authorities, and local governments, which will contribute to its success and maximize its impacts in China.

186. The Government has integrated biodiversity conservation, its sustainable use and access to and benefit-sharing of genetic resources and associated traditional knowledge into key national strategic plans, planning and programmes. In October 2011, the National People's Congress (NPC)

reviewed and adopted The Outline of the Twelfth Five-Year Plan for National Economic and Social Development of People's Republic of China (the "Outline", 2011 – 2015). Chapter 25 of the Outline is on Promoting Ecological Conservation and Restoration reiterates the need for conserving biodiversity, improving species resources conservation and management, and effectively preventing bio-piracy and the loss and genetic resources.

187. In December 2011, the State Council issued the Twelfth National Five-Year Plan for Environmental Protection in which biodiversity conservation is identified as an outstanding environmental problem that needs to be effectively addressed. The plan also requires the continuous implementation of CNBSAP, enhanced efforts to develop germplasm banks and gene pools for key areas and sectors, strengthened supervision and management of genetic resources (species) import and export, and establishment of regime on access to and benefit sharing of genetic resources.

COUNTRY OWNERSHIP: COUNTRY ELIGIBILITY AND COUNTRY DRIVENNESS

188. The project directly implements the State Council adopted China National Biodiversity Conservation Strategy and Action Plan (CNBSAP) for 2011 – 2030. The CNBSAP defines the basic principles as "conservation first", "sustainable use", "public participation", and "benefit sharing" and reiterates the need to "ensure benefit sharing of genetic resources and associated traditional knowledge" which is one of the 8 strategic tasks. It includes: (i) to draw on advanced international experience and carry out pilot demonstrations; (ii) to strengthen studies on valuation of biodiversity and systems for management of biological and genetic resources; (iii) to rescue and pass on associated traditional knowledge by improving its protection system; and (iv) to explore the establishment of a regime for access to, and benefit sharing of, genetic resources and associated traditional knowledge and coordinate the interests among protectors, developers and users of genetic resources and associated traditional knowledge to ensure that the interests of all stakeholders will be protected.

SUSTAINABILITY AND REPLICABILITY

189. **Environmental sustainability:** The ABS Framework being developed with support of the project will create economic incentives to conserve genetic resources and associated traditional knowledge by rewarding holders of such knowledge. It will operate in conjunction with, and create synergies with, related regulatory efforts such as the National Intellectual Property Strategy that also include environmental sustainability among their aims.

190. **Institutional sustainability:** The project's major focus is on supporting the institutionalization of ABS within China's regulatory systems and procedures. The development of an ABS Framework represents the cornerstone of this effort. By defining long-term institutional responsibilities, staffing requirements and processes under this framework, while building associated capacities and demonstrating value and benefits via piloting, the project will be making a major contribution to the institutional sustainability of ABS efforts in China.

191. **Social sustainability:** The project makes a similarly important contribution to social sustainability. The institutional framework described in the preceding paragraph will aim to ensure the equitable distribution of benefits arising from the utilization of genetic resources and of the traditional knowledge associated with genetic resources (ATK) to the providers of the genetic resources and to the holders of ATK, as prescribed in the Nagoya Protocol (NP). This emphasis on equity, together with a focus on strengthening economic incentives for conservation and sustainable use, will together contribute to social sustainability. Social sustainability will be further enhanced by conservation of associated traditional knowledge, which plays an important role in social cohesion among many rural communities as well as in urban areas.

192. **Replicability:** China with its long history of civilisation and vast territory has a wealth of traditional culture and knowledge that has made use of a large number of genetic resources of wild fauna and flora as well as the cultivated crops and livestock. However, the concept of fair and equitable benefit sharing is new to its many of the genetic resource providers and users. There is, therefore, tremendous potential for the ABS agreements piloted in the project and trial products that are produced to be scaled up under provincial and national programmes after its accession to the NP. Many of the project outputs, such as regulations including, **as appropriate**, NP compliant PIC and community protocols, model contracts, codes of conduct, and certificates of compliance/origin on ABS developed with stakeholder participation in compliance with the Nagoya Protocol, will provide tools for replication activities. The project will develop a replication plan to incorporate concrete mechanisms for replication. The plan will include a clear strategy, methodology, and target for replication. The project will systematically document experiences from different components, in particular from the pilot activities, and codify lessons and disseminate widely. The project is sustainable as it focuses on establishing the systemic and institutional capacity of the government, which also makes the successful replication highly likely. In addition to the legal framework, the government's institutional arrangements and the necessary components of financial (benefit-distribution) mechanisms for ABS will be examined in the project to create a firm foundation for sustaining the capacity built by the project.

193. **Gender:** Chinese institutional and administrative practices are strongly oriented toward gender sensitivity, and representation of women at all levels of operation from the most local to the highest governmental levels. This approach is apparent and will be an important element of the project. Since 1995, China has formulated and implemented three rounds of the Programme for the Development of Chinese Women. As the national action plan to promote the development of women, the Programme is designed to promote women's full development and to protect their rights in terms of health, education, economy, participation in decision-making and management, social security, environment, laws, etc. It has further incorporated gender awareness into the legal and policy system, and improved the level of women's social security. It has enhanced women's political participation and further raised their sense of social participation. The central objectives of this Programme include the following:

- Create an enabling social environment for the overall development of women.
- Enhance the level of the social welfare enjoyed by women.
- Enhance women's participation in environmental protection and decision-making.

194. The project and this Programme will be mutually supportive in this respect. While the project will include direct efforts to enable women's participation in a key development process that is focused on both enhancement of social welfare and protection of the environment, the Programme for the Development of Chinese Women will provide a platform that will help to solidify and maintain the gains achieved by the project.

PART III: Management Arrangements

195. The project's implementation and execution arrangements are designed to ensure a balanced and coordinated development of a national ABS Framework for China. The Ministry of Environmental Protection (MEP) is the government institution responsible for daily execution and coordination of the project and will serve as the government *Executing Agency* (EA). UNDP is the sole *GEF Implementing Agency* (IA) for the project. The project will be nationally implemented (NIM), in line with the Standard Basic Assistance Agreement between the UNDP and the Government of China, and the Country Programme Action Plan (CPAP). Other executing partners include Yunnan EPB, Guangxi EPB and Hunan EPB, each of which will implement pilot demonstrations within their respective provinces. Each of these agencies will receive a sub-grant from MEP for this purpose.

IMPLEMENTATION ARRANGEMENTS

Project Oversight

196. Oversight of project activities will be the responsibility of the Project Steering Committee (PSC). Day-to-day operational oversight will be ensured by UNDP, through the UNDP Country Office in Beijing, and strategic oversight by the UNDP/GEF Regional Technical Advisor (RTA) responsible for the project. This oversight will include ensuring that the project practices due diligence with regard to UNDP's Environmental and Social Screening Procedure (see **Annex 4** for details). The structure of project management and oversight arrangements is shown in the organogram in **Section IV Part II** below.

197. MEP will have overall responsibility for project execution, and the timely and verifiable attainment of project objectives and outcomes, and will report to the PSC. MEP will provide support to, and inputs for, the implementation of all project activities, and recruitment of project staff and contracting of consultants and service providers with the advice from and involvement of the UNDP. International procurement will be mainly handled by the UNDP upon request of the MEP. A Deputy Director General of FECO will serve as *National Project Director (NPD)* for project implementation. The NPD will be responsible for providing government oversight and guidance for project implementation. The NPD will not be paid from the project funds, but will represent a Government in-kind contribution to the Project.

198. The *UNDP Country Office (UNDP-CO)* will be responsible for: (i) providing financial and audit services to the project; (ii) overseeing financial expenditures against project budgets approved by MEP; (iii) appointment of independent financial auditors and evaluators; and (iv) ensuring that all activities including procurement and financial services are carried out in strict compliance with UNDP/GEF procedures. A UNDP staff member will be assigned the responsibility for the day-to-day management and control over project finances.

199. A *Committee (PSC)* will be convened by MEP. The PSC will comprise relevant national and sub-national agencies, and membership by those agencies should remain consistent. The PSC will serve as the project's coordination and decision-making body. It will meet according to necessity, but not less than once in a year, to review project progress, approve project work plans and approve major project deliverables. The PSC is responsible for ensuring that the project remains on course to deliver products of the required quality to meet the outcomes defined in the project document. The PSC's role will include: (i) overseeing project implementation; (ii) approving annual project work plans and budgets, at the proposal of the Project Manager (PM), for submission to UNDP; (iii) approving any major changes in project plans or programmes; (iv) providing technical input and advice; (v) approving major project deliverables; (vi) ensuring commitment of resources to support project implementation; (vii) arbitrating any conflicts within the project and/or negotiating solutions between the project and any parties beyond the scope of the project; (viii) overall project evaluation and (ix) ensuring that UNDP Environmental and Social Screening Procedure safeguards are applied to project implementation.

200. The PSC will include the following stakeholders: MEP, UNDP, Ministry of Finance, Hunan Environmental Protection Department (EPD), Yunnan EPD and Guangxi EPD. A full list of PSC members, along with terms of reference will be finalized during the Project Inception Workshop.

201. A *Technical Working Group (TWG)* will be established to advise on technical matters relating to the project and will be chaired by the NPD. The members of the TWG will include experts from relevant fields such as agriculture, forestry, traditional medicine, cultural, intellectual property, gender, etc. Consultants and technical support will be provided by local and international professionals with extensive experience of the subject areas required by the project. The specific consultancy inputs required are detailed in **Section IV Part III**. The UNDP global knowledge network will also provide inputs through best practices and lessons learned from similar experiences in other countries.

Project Management

202. The day-to-day administration of the project will be carried out by a *National Project Management Office* (NPMO) hosted by MEP-FECO consisting of the NPD. The PMU will be led by a Senior Technical Advisor / Project Manager (STA/PM) and will include two long-term experts and a Project Assistant. The project staff will be recruited following UNDP and MEP recruitment procedures. The STA/PM will, with the support of the Project Assistant, manage the implementation of all project activities, including: (i) preparation/updates of project work and budget plans, record keeping, accounting and quarterly and annual progress reporting; (ii) drafting of terms of reference, technical specifications and other documents as necessary; (iii) identification, proposal of project consultants to be approved by the PSC, coordination and supervision of consultants and suppliers; (iv) organization of duty travel, seminars, public outreach activities and other project events; and (v) maintaining working contacts with project partners at the central and local levels.

203. The PM is accountable to MEP and the PSC for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. The PM will produce Annual Work Plan and biennial Budget Plans to be approved by the PSC. These plans will provide the basis for allocating resources to planned activities. The PM will further produce quarterly operational reports and Annual Progress Reports (APR) for submission to the PSC. These reports will summarize the progress made by the project versus the expected results, explain any significant variances, detail the necessary adjustments and be the main reporting mechanism for monitoring project activities. The PM will also be technically supported by contracted national and international service providers. Recruitment of specialist services for the project will be done by the PM in consultation with the UNDP and the MEP. The PM will also liaise and work closely with all partner institutions to ensure good coordination with other complementary national programmes and initiatives. The organogram for project management (see **Section IV Part II**) illustrates the working relationship between all the main project implementing parties or bodies.

Project Management for Demonstration Projects

204. A provincial coordinator in each province will be responsible for daily management of the project pilot in her/his province. S/he will be physically based in each province and supervised on a daily basis by the provincial Environmental Protection Department (EPD) and technically supervised by Central PMO (the latter to be established in Division IV of FECO). FECO will be responsible for budget allocation to each province according to the ProDoc and AWP. Each province will report to FECO, which will consolidate the financial and technical results of the project for reporting to UNDP. Each EPD will organize the consultants for providing timely technical support to provincial PMUs during project implementation.

205. Under the supervision of the central PMU, project management for the implementation of demonstration activities in Component 3 will be coordinated through an exchange of letters (a recognized form of agreement) between MEP (FECO) as EA and the project partner responsible for execution / implementation of each pilot. The exchange of letters will include as a minimum the following items: Statement of Work for the activities to be undertaken (objectives; technical specifications of the activities to be performed; deliverables and verifiable indicators; schedule for implementation; M&E and reporting requirements; responsibilities of each party); budget and disbursement schedule; supervision, review and acceptance; procedure for termination. The management arrangements for the demonstration projects must be entirely consistent and integrated with those for the overall project, including the project M&E Plan, reporting requirements and budget disbursement. The local management arrangements for each pilot project will be described in the exchange of letters, and are expected to include representation of principal stakeholders such as relevant state authorities, local communities and other partners in their implementation. There will be equitable participation of women and ethnic minorities on local level committees and groups

related to PIC negotiations, community co-management, training and awareness activities. See the **Stakeholder Participation Plan in Section IV Part IV** for further details.

PART IV: Monitoring and Evaluation Plan and Budget

MONITORING AND REPORTING¹⁰

206. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Office (UNDP-CO) with support from the UNDP/GEF Regional Coordination Unit in Bangkok. The Strategic Results Framework in **Section II Part I** provides performance and impact indicators for project implementation along with their corresponding means of verification. The M&E plan includes: inception report, project implementation reviews, quarterly and annual review reports, and mid-term review and final evaluation. The following sections outline the principal components of the M&E Plan and indicative cost estimates related to M&E activities (see **Table 6** below). The project's M&E Plan will be presented and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

207. A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate. A fundamental objective of the Inception Workshop will be to assist the project team to understand and take ownership of the project's goal and objective, as well as finalize preparation of the project's first Annual Work Plan (AWP) and annual and quarterly activity plans on the basis of the Strategic Results Framework. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the BWP with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. A gap analysis on the implementation of the ABS framework should also be conducted during project inception to confirm the scope of the project intervention.

208. A detailed schedule of project review meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Day-to-day monitoring of implementation progress will be the responsibility of the Project Manager based on the project's annual Work Plan, activity plans and its indicators. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at the Inception Workshop and included in the BWP. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

209. Measurement of impact indicators related to ABS targets will occur according to the schedules defined in the Inception Workshop. The measurement of these will be undertaken through subcontracts or retainers with relevant institutions. Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the Implementing Partner, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

¹⁰ As per GEF guidelines, the project will also be using the BD 1 Management Effectiveness Tracking Tool (METT). New or additional GEF monitoring requirements will be accommodated and adhered to once they are officially launched.

210. Annual Monitoring will occur through the PSC Meetings (PSCM). This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to NPSCMs at least two times a year. The first such meeting will be held within the first six months of the start of full implementation.

211. The Project Manager in consultations with UNDP-CO and UNDP-GEF RCU will prepare a UNDP/GEF PIR during the months of June-August. In addition, the Project Manager, in consultation with UNDP-CO will prepare an Annual Review Report (ARR) by the end of January and submit it to PSC members at least two weeks prior to the PSCM for review and comments. The ARR will be used as one of the basic documents for discussions in the PSCM. The Project Manager will present the ARR (and if needed the PIR) to the PSC, highlighting policy issues and recommendations for the decision of the PSCM participants. The Project Manager also informs the participants of any agreement reached by stakeholders during the PIR/ARR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The NSC has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

212. The terminal PSCM is held in the last month of project operations. The Project Manager is responsible for preparing the Terminal Report and submitting it to UNDP-CO and UNDP-GEF RCU. It shall be prepared in draft at least two months in advance of the terminal PSCM in order to allow review, and will serve as the basis for discussions in the PSCM. The terminal meeting considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects.

213. UNDP Country Offices and UNDP-GEF RCU as appropriate, will conduct yearly visits to project sites based on an agreed upon schedule to be detailed in the project's Inception Report/Annual Work Plan to assess first hand project progress. Any other member of the Project Steering Committee can also accompany.

Reporting

214. The Project Manager will be responsible for the preparation and submission of the following reports that form part of the monitoring process. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. An Annual Review Report (ARR) shall be prepared by the Project Manager and shared with the Project Steering Committee. As minimum requirement, the ARR shall consist of the Atlas standard format for the Project Progress Report (PPR) covering the whole year with updated information for each element of the PPR as well as a summary of results achieved against pre-defined annual targets at the project level. The ARR should consist of the following sections: (i) project risks and issues; (ii) project progress against pre-defined indicators and targets and (iii) outcome performance. The Project Implementation Review (PIR) is an annual monitoring process mandated by the GEF. Once the project has been under implementation for a year (from the CEO approval date), a Project Implementation Report must be completed by the CO together with the project team. Quarterly progress reports: Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF RCU by the project team. UNDP ATLAS Monitoring Reports: A Combined Delivery Report (CDR) summarizing all project expenditures, is mandatory and should be issued quarterly following the finalization of the quarterly progress reports. The following logs should be prepared: (i) The Issues Log is used to capture and track the status of all project issues throughout the implementation of the project. (ii) the Risk Log is maintained throughout the project

to capture potential risks to the project and associated measures to manage risks; and (iii) the Lessons Learned Log is maintained throughout the project to capture insights and lessons based on good and bad experiences and behaviours. Project Terminal Report: During the last three months of the project the project team will prepare the Project Terminal Report. Periodic Thematic Reports: As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs.

External Evaluations

215. The project will be subjected to at least one independent external review and one evaluation: An independent Mid-Term Review will be undertaken at the mid-point of the project lifetime. The Mid-Term Review will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Furthermore, it will review and update the ESSP report. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term review will be decided after consultation between the parties to the project document. The ToR for this Mid-term review will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

216. An independent Final Evaluation will take place three months prior to the terminal Project Steering Committee meeting, and will focus on the same issues as the mid-term review. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The ToR for this evaluation will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

Learning and Knowledge Sharing

217. The project will develop a communications strategy in the first year, which will be updated annually and implementation supported by a communications, education and awareness specialist. This will include capturing and disseminating lessons learned, for review at PSC meetings in order to inform the direction and management of the project, and shared with project stakeholders as appropriate. A project completion report will document the project's achievements and lessons learned at the end of the project. Results from the project will also be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums.

Branding and Visibility

218. Full compliance is required with UNDP's Branding Guidelines and guidance on the use of the UNDP logo. These can be accessed at <http://web.undp.org/comtoolkit/reaching-the-outside-world/outside-world-core-concepts-visual.shtml>. Full compliance is also required with the GEF Branding Guidelines and guidance on the use of the GEF logo. These can be accessed at http://www.thegef.org/gef/GEF_logo. The UNDP and GEF logos should be the same size. When

both logs appear on a publication, the UNDP logo should be on the left top corner and the GEF logo on the right top corner. Further details are available from the UNDP-GEF team based in the region.

Audit Clause

219. The Government will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted according to UNDP financial regulations, rules and audit policies by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

Table 7. M&E Activities, Responsibilities, Budget and Time Frame

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop	Project Manager UNDP CO UNDP GEF	10,000	Within first three months of project start up
Inception Report	Project Team UNDP CO	None	Submit draft two weeks before the IW, finalize it immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Indicative cost: 15,000.	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance- measured annually	Oversight by Project Manager Project team	None	Annually prior to ARR/PIR and to the definition of annual work plans
ARR and PIR	Project Team UNDP-CO UNDP-GEF	None	Annually
Quarterly progress reports	Project team	None	Quarterly
CDRs	Project Manager	None	Quarterly
Issues Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Risks Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Lessons Learned Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Mid-term Review, including ESSP review	Project team UNDP- CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. review team)	40,000	At the mid-point of project implementation.
Final Evaluation	Project team, UNDP-CO UNDP-GEF Regional	40,000	At the end of project implementation

	Coordinating Unit External Consultants (i.e. evaluation team)		
Terminal Report	Project team UNDP-CO local consultant	0	At least one month before the end of the project
Lessons learned	Project team UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc)	5,000	Yearly
Audit	UNDP-CO Project team	10,000	Yearly
TOTAL indicative COST <i>Excluding project team staff time and UNDP staff and travel expenses</i>		US\$ 120,000	

PART V: Legal Context

220. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of China and the United Nations Development Programme, signed by the parties on 12 September 2012. The term “host country-implementing agency” shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

221. The UNDP Resident Representative in Beijing is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-EEG Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- a) Revision of, or addition to, any of the annexes to the Project Document;
- b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
- d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF) AND GEF INCREMENT

PART I: Strategic Results Framework, SRF (formerly GEF Logical Framework) Analysis

Table 7: Strategic Results Framework

Project's Development Goal: To establish and operationalise a robust legal and institutional framework for implementing the national and provincial ABS regime in China, ensuring equitable distribution of benefits to the holders of the traditional knowledge as prescribed in the Nagoya Protocol (NP).					
Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
Objective: To develop and implement China's national framework on access to and benefit sharing (ABS) of genetic resources and associated traditional knowledge in accordance with provisions of the Convention on Biological Diversity (CBD) and the Nagoya Protocol (NP)	Accession to the Nagoya Protocol	China has not acceded to the Protocol	Accession to the Nagoya Protocol	Official gazette	There has been no specific decision on ABS in the State Council and People's Congress. Controversy or lengthy procedures for consultation in these forums might delay or prevent accession.
	Status of adoption and/or implementation of the National ABS Framework at national level	No framework, in place. Some individual laws identify specific types of GR in ways that could be coordinated with, or integrated into, a national ABS framework.	National ABS regulatory framework in compliance with the Nagoya Protocol established and operational at a national level, according to national constitutional and administrative processes for the adoption of legislation, establishment of implementing mechanisms and institutions authorized under such legislation, appointing and properly training and authorizing personnel to those institutions and mechanisms and whatever other actions or processes are legally required to establish and operationalize national legislative frameworks in China.	Official government reports	Political discussion at the level of the State Committee and People's Congress may involve controversy, delaying or preventing establishment or operability

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
	Status of adoption and/or implementation of the National ABS Framework at sub-national levels	No framework in place and no pilots implemented to date.	National ABS regulatory framework implementing legislations or other measures established and operational in three pilot province/regions and, as appropriate, sub-provincial jurisdictions participating in the pilots, and guidance provided to other provinces and regions regarding establishment and implementation of frameworks to implement the national framework	Official government reports Project reports	Sub-national bodies cannot adopt and or implement legislation implementing the national framework if the national framework does not yet exist
	Biodiversity conserved by the pilots Incentives for biodiversity conservation	Limited areas / efforts devoted to conservation of target species	Protected areas established for wild dendrobe habitat covering 300 ha Protected areas established covering 2,000 ha in areas where species (over 1,000 of which are threatened) used in Dai traditional medicine are concentrated Conservation of original stocks of indigenous black pigs (up to 1,000 individuals) Village conservation agreements covering varieties of Huangjin and Guzhang teas	Official Government reports	
Component 1. Establishment of the National Regulatory and Institutional Framework on ABS 1.1: State Council of China is provided with information needed to formally approve accession to the Nagoya Protocol 1.2: National ABS framework—including, if and as appropriate, NP compliant PIC and community protocols,	Elements (policy, legislation, guidance) of a national framework	No elements necessary for creation of a primary ABS Framework in place, although, as noted above, some legal provisions addressing GR or ATK exist in other legislation.	National framework instruments (policy, legislation, guidance, as and if determined to be needed) are adopted and coordinated with existing legal provisions addressing GR and ATK	Official government reports	As above
	Incentive programs and codes of conduct for major commercial sectors	No such documents (formal or informal) in place for any sector.	Programs providing incentives for user participation in ABS and codes of conduct for ABS compliance, collaboratively developed with and implemented through at least three major commercial sectors (e.g. from among the following: forests, marine, agriculture, traditional medicine, cosmetics, pharmaceuticals, etc.) and associations. prepared with the participation of	Sectoral agency and organisation publications (codes of conduct, etc)	Commercial and sectoral organizations may lack incentives to create and adopt ABS codes of conduct

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
<p>model contracts, codes of conduct and certificates of compliance/origin on ABS—developed with stakeholder participation and in compliance with Nagoya Protocol</p> <p>1.3: ABS framework implementation plans formulated and operational, including:</p> <p>(i) plan for access to and benefit sharing of genetic resources and derivatives for commercial purposes;</p> <p>(ii) plan for access to genetic resources, traditional knowledge associated with genetic resources, and derivatives used for commercial purposes including application of PIC and community protocol, and benefit-sharing with regard to their utilization; and</p> <p>(iii) plan for academic/non-commercial research protocol</p> <p>1.4: Establish national-level institutional arrangements for ABS</p> <p>1.5: Proposals and guidelines for financial mechanisms related to</p>			sectoral stakeholders.		
	Guidance for adoption of relevant sub-national legislation	No guidance instruments have been developed	Templates and guidance for the adoption of relevant legislation, and/or guidance at provincial/ regional and lower levels of government approved	Project reporting and supported publications	Depends on the prior adoption of the national framework.
	Instruments and mechanisms necessary to formally establish elements of the national framework	No such instruments or mechanisms (formal or informal) in place. Databases including information potentially relevant exist but are not coordinated	Instruments necessary to formally establish all elements of the national framework (e.g. PIC and MAT procedures, certificates of compliance (as appropriate), national ABS clearinghouse and other monitoring and oversight mechanisms) are adopted and relevant systems, mechanisms and databases are developed and/or coordinated.	Official government reports	Depends on the prior adoption of the national framework. Databases and compendiums of ATK (and possibly also of key genetic information) may operate as focus points for biopiracy.
	Guidance documents re. elements of the national framework	No such instruments (formal or informal) in place.	Guidance documents on elements of the national framework, i.e. PIC and MAT, ABS contracts and their negotiation, completion and use of certificates of compliance (as appropriate), and access to the ABS Clearing-House, are adopted and widely available	Project reporting and supported publications	

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
benefit sharing, etc.					
<p>Component 2. ABS capacity building and awareness-raising</p> <p>2.1: Enhanced capacity and awareness of implementation of China's ABS regime at the national and provincial levels.</p> <p>2.2: Training materials and programme for ABS.</p> <p>2.3: A platform to enable the sharing of technology and knowledge resources with Chinese stakeholders, including through the ABS Clearing-House</p> <p>2.4: Systems and guidelines for sharing information and knowledge related to ABS among ministries</p>	National-level institutional capacity for ABS implementation	No existing experience or training materials related to ABS and associated transactions	Case studies and training material on the basis of the pilot/demos and the legislation, procedures and contracts developed and incorporated into staff training programs	Project reporting and supported publications	MEP staff operate in a policy and regulatory environment (developed under component 1) that gives them adequate opportunity and authority to engage productively in ABS framework development and oversight
		MEP: 39 out of 69 (57%) on UNDP ABS Capacity Development Scorecard	MEP: 53 out of 69 (77%) on UNDP ABS Capacity Development Scorecard	UNDP ABS Capacity Development Scorecard	
		Very few staff within implicated national-level agencies have more than a basic awareness of ABS	A sufficient number of personnel (to be determined during the inception phase) of national-level agencies involved with ABS implementation are able to perform ABS-related functions successfully (Note: Number of proposed staff will be reviewed during project implementation)	Project documentation	
	Provincial-level institutional capacity for ABS implementation in Yunnan Province, Guangxi Autonomous Region and Hunan Province	Yunnan Province: 16 out of 69 (23%) on UNDP ABS Capacity Development Scorecard	At least 36 out of 69 (52%) on UNDP ABS Capacity Development Scorecard	UNDP ABS Capacity Development Scorecard	Pilot province staff operate in a policy and regulatory environment (developed under component 1) that gives them adequate opportunity to engage productively in ABS framework development and oversight
		Guangxi Autonomous Region: 11 out of 69 (16%) on UNDP ABS Capacity Development Scorecard	At least 27 out of 69 (39%) on UNDP ABS Capacity Development Scorecard	UNDP ABS Capacity Development Scorecard	
		Hunan Province: 11 out of 69 (16%) on UNDP ABS Capacity Development Scorecard	At least 27 out of 69 (39%) on UNDP ABS Capacity Development Scorecard	UNDP ABS Capacity Development Scorecard	
Component 3. Pilot	Availability and accessibility of	Scattered and partial information exists but is not easily obtained	Existence of systems to institutionally store and update information about GRs		Biopiracy risks increase as specific data (ATK,

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
<p>demonstrations on ABS</p> <p>3.1: Enhanced understanding of genetic resources and associated traditional knowledge, related ABS opportunities and associated barriers in Hunan and Yunnan Provinces and Guangxi Autonomous Region</p> <p>3.2: Create the legal foundation for institutional arrangements and procedures that will govern ABS in the pilot areas</p> <p>3.3: ABS agreements negotiated and implemented across Hunan and Yunnan Provinces and Guangxi Autonomous Region, including examples from cosmetics, medicine, healthcare and others) in the pilot-demonstration jurisdictions</p> <p>3.4: Lessons and experiences in implementing local ABS regimes are documented and disseminated for replication, based on the project's replication plan</p>	ABS information	and used	and ATK in one region, one province and four autonomous prefectures. They should be organised into data sets that are generally and easily accessible to all potential providers and/or users and or involved agencies / officials.	Project reporting and supported publications	genetic code, etc) is transferred and committed to writing. Although inexperienced, the providers and government officials involve will need to take steps to protect against this risk in every negotiation.
	Quantity and nature of ABS agreements in China	Some informal oral agreements exist related to benefit sharing	At least six ABS agreements in compliance with NP in place and operational	Project documentation and, as appropriate, any permits, certificates or other documents filed under pilot/demo legislation	Users (commercial organisations and academic institutions and others) might face obstacles that prevent or curtail their participation in demonstration negotiations.
		No experience with PIC, MAT and ABS contracts.	Among the above six agreements, at least four will include PIC and MAT with local communities	Project documentation and, as appropriate, any permits, certificates or other documents filed under pilot/demo legislation	As above. Biopiracy risks increase as specific data (ATK, genetic code, etc) is transferred and committed to writing. Although inexperienced, the providers and government officials involve will need to take steps to protect against this risk in every negotiation.
		Key bio-industries lack any ABS experience or examples	Among the above 6 agreements, one or more in each of the following areas: medicine and medicinal practices and food and beverage products. <u>Note:</u> some agreements may cover more	Project documentation and, as appropriate, any permits,	Users (commercial organisations and academic institutions and others) might face obstacles that prevent or

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
			than one area	certificates or other documents filed under pilot/demo legislation	curtail their participation in demonstration negotiations.
	Jurisdictions with ABS implementation experience	None	At least one autonomous region, one province and four autonomous prefectures have practical experience regulating ABS agreements	Project documentation	
	Local communities benefit from GR and ATK utilization	No local communities are currently benefiting through ABS agreements	At least four of the users (companies) involved in ABS agreements have begun sharing benefits with providers (communities)	Project documentation and, as appropriate, any permits, certificates or other documents filed under pilot/demo legislation	
	Availability of best practice information on ABS implementation in China	No best practice information available in Chinese language	Best practice guidance on ABS processes ¹¹ at national, state and local levels adopted on the basis of experience developed through the pilot/demos and their operation.	Project reporting and supported publications	

¹¹PIC, MAT, negotiation of ABS contracts, certificates (as appropriate), monitoring, compliance

Part II: Incremental Cost Analysis

Table 8. Incremental Cost Matrix

Cost/ Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
BENEFITS			
Global benefits	The lack of a specific and concrete national ABS regime in China represents a significant gap in the global implementation of the Nagoya Protocol and the entire concept of ABS and genetic resources. The lack of such legislation does not mean that there are no national, community or individual rights relating to genetic resources or ATK, but only that those rights are unclear and not legally certain. The consequences of this lack of legal certainty in a country whose relative size and other factors make it a major participant in global policy and commerce are not clear.	The project aims to establish a national law and implementing regulations on ABS, and the institutional framework and supporting measures for their implementation. It will clarify the status of genetic resources and ATK in the country, enabling greater legal certainty in all areas genetic-resource and ATK. This in turn will promote and facilitate the access of potential users, not only to genetic resources and ATK within China, but throughout Asia, enabling users to operate with certainty regarding legal rights and authorities relating to genetic resources and ATK and expedite the clarification of a range of regional and international issues relating to ABS, the Nagoya Protocol and genetic resource/ATK concepts.	The enhanced legal certainty will contribute to the full implementation of the Nagoya Protocol in a manner that is legally certain In addition, the introduction of an effective national ABS regime will contribute towards biodiversity conservation across a jurisdiction that constitutes a significant percentage of the Eurasian continent, and encourage sustainable use of globally significant genetic resources.
National and local benefits	China does not yet have a legal and regulatory ABS framework and does not yet require PIC, MAT, or equitable sharing of benefits. There is inadequate awareness and institutional capacity to implement a national ABS regime. Overall, the	A national ABS framework will be developed and demonstrated for the protection of traditional knowledge focusing on PIC requirements. The process of developing this national ABS framework will produce information and capacity development for legislators and legislative draftsmen, which will promote the ability of the People's Congress and State Council to	Greater economic benefits to the government and other stakeholders from genetic resources enabled, thereby providing incentives for biodiversity conservation; Increased awareness of the existence, use and option values of biological resources among key

Cost/ Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
	<p>constituency and financial resources for biodiversity conservation will not advance beyond current baseline levels. Access to and use of genetic and traditional knowledge resources will continue to be weakly regulated. The potential for receipt of benefit-sharing will be diminished or lost entirely, and the risk of biopiracy – related losses (misappropriation, misuse and misattribution of GR and ATK) will increase.</p> <p>Inadequately regulated bio-prospecting may not take account of the PIC, rights and needs of local communities and other stakeholders, or include any requirement for the equitable sharing of benefits or the capacity to subsequently monitor compliance with any such benefit sharing agreement. Loss of TK, and absence of incentives for sustainable land use will result in continued loss and degradation of biological resources.</p>	<p>accede to the NP. It will expedite implementation, when China has acceded to the Nagoya Protocol.</p> <p>Strategic awareness raising and capacity building will be conducted for target groups and appropriate financial mechanisms may be developed, as necessary to ensure fair and equitable distribution or use of proceeds from ABS agreements.</p> <p>Demonstrated development of pilot ABS agreements exemplify practical implementation, with attention to the core ABS principles, including the fair and equitable sharing of benefits, combined with capacity building and awareness raising to enhance understanding of the value of biological resources and measures for their improved security</p> <p>The project will strengthen regulation of all means of accessing and otherwise obtaining GR and ATK from local communities in China, through the establishment of the national ABS framework, provision of training to checkpoint agencies on issues such as permitting processes, and develop supporting information management including monitoring and tracking systems for permits to monitor activities.</p> <p>The need for and possible approaches to mechanisms supporting the ABS processes, including, as appropriate, PIC, MAT, community protocol, and approaches to the protection of ATK, the negotiation of ABS agreements and the fair and equitable sharing of benefits, will be considered, and, where considered appropriate or necessary, demonstrated in a manner designed to maximize public involvement and participation.</p>	<p>audiences.</p> <p>Communities that are holders of genetic resources and associated traditional knowledge are provided with livelihood options that result in economic benefits, thereby reducing pressures for unsustainable use and conversion of ecosystems; TK is protected;</p> <p>National development strategies and economic growth are supported, reducing poverty and poverty-associated threats to ecosystem integrity.</p>

Cost/ Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
COSTS	Baseline:	Alternative:	Increment:
Component 1: Establish-ment of the National Regulatory and Institutional Framework on ABS	Government-\$ 4,000,000	Government – \$ 6,864,000 GEF - \$826,210 TOTAL - \$7,690,210	Government – \$ 2,864,000 GEF - \$826,210 TOTAL - \$3,690,210
Component 2. ABS capacity building and awareness- raising	Government-\$ 1,000,000	Government – \$ 4,466,000 GEF - \$900,000 TOTAL - \$5,366,000	Government – \$ 3,466,000 GEF - \$900,000 TOTAL - \$4,366,000
Component 3. Pilot demonstra- tions on ABS (cont.)	NA	Government – \$ 10,406,000 GEF - \$2,500,000 TOTAL - \$12,906,000	Government – \$ 10,406,000 GEF - \$2,500,000 TOTAL - \$12,906,000
PROJECT TOTAL	Government – \$5,000,000 TOTAL - \$5,000,000	Government – \$ 21,736,000 GEF - \$4,226,210 TOTAL - \$25,962,000	Government – \$ 16,736,000 GEF - \$4,226,000 TOTAL - \$20,962,000

Cost/ Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
Project Management		Government – \$1,200,000 GEF - \$210,000 TOTAL - \$1,410,000	Government – \$1,200,000 GEF - \$210,000 TOTAL - \$1,410,000
TOTAL COSTS	Government – \$5,000,000 TOTAL - \$5,000,000	Government – \$ 22,936,000 GEF - \$4,436,210 TOTAL - \$27,372,000	Government – \$ 17,936,000 GEF - \$4,436,000 TOTAL - \$22,372,000

SECTION III: Total Budget and Workplan

Short Title: National ABS Framework China

Award ID: 00087750

Project ID: 00094671

Business Unit: CHN10

Project Title: Developing and Implementing the National Framework on Access and Benefit Sharing of Genetic Resources and Associated Traditional Knowledge

PIMS#: 5310

Implementing Partners: Ministry of Environmental Protection (MEP)

Table 9: Total Budget, Summary, and Budget Notes

Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Acct Code	Atlas Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budget Note
Component 1											
	62000	GEF	71200	International Consultants	21,000	21,000	5,000	5,000	5,000	57,000	1
			71300	Local Consultants	12,680	12,680	12,680	12,680	12,680	63,400	2
			71400	Contractual Services - Individ	52,160	52,160	52,160	52,160	52,160	260,800	3
			72100	Contractual services - Companies	20000	20000	20000	0	0	60,000	4
			75700	Workshops	10,000	10,000	10,000	10,000	10,000	50,000	5
			71600	Travel	70,000	50,000	70,000	50,000	60,000	300,000	6

			72800	Equipment & Furniture	1,000	1,000	1,000	1,000	1,000	5,000	7
			74200	Audio Visual&Print Prod Costs	3,000	3,000	3,000	3,000	3,000	15,000	8
			72400	Communic & Audio Equip	1,000	1,000	1,000	1,000	1,000	5,000	9
			74500	Miscellaneous Expenses	2,000	2,000	2,000	2,000	2,010	10,010	10
				TOTAL COMPONENT 1	192,840	172,840	176,840	136,840	146,850	826,210	
Component 2											
			71200	International Consultants	0	0	4,500	0	4,500	9,000	11
			71300	Local Consultants	0	0	700	0	700	1,400	12
			71400	Contractual Services - Individ	49,320	49,320	49,320	49,320	49,320	246,600	13
			72100	Contractual services - Companies	60,000	60,000	80,000	80,000	10,000	290,000	14
			75700	Workshops	15,000	15,000	15,000	15,000	15,000	75,000	15
			71600	Travel	45,000	25,000	45,000	25,000	35,000	175,000	16
			72200	Equipment & Furniture	3,000	10,000	3,000	9,000	3,000	28,000	17
			74200	Audio Visual & Print Prod Costs	5000	10000	10000	10000	10000	45,000	18
			72400	Communic & Audio Equip	1000	1000	1000	1000	1000	5,000	19
			74500	Miscellaneous Expenses	5000	5000	5000	5000	5000	25,000	20
				TOTAL COMPONENT 2	183,320	175,320	213,520	194,320	133,520	900,000	
Component 3											
			71200	International Consultants	0	0	5000	24,000	4,000	33,000	21
			71300	Local Consultants	1000	1000	700	0	700	3,400	22
			71400	Contractual Services - Individ	49,320	49,320	49,320	49,320	49,320	246,600	23
			72100	Contractual services - Companies	200000	200000	0	0	0	400,000	24
			72100	Contractual services - Companies (Sub grants to provinces)	330,000	330,000	330,000	330,000	231,000	1,551,000	25
			75700	Workshops	10,000	10,000	10,000	10,000	10,000	50,000	26
			71600	Travel	20,000	15,000	20,000	15,000	20,000	90,000	27
			74200	Audio Visual&Print Prod Costs	6,000	7,000	6,000	7,000	6,000	32,000	28
			72400	Communic & Audio Equip	1,000	1,000	1,000	1,000	1,000	5,000	29

			74500	Miscellaneous Expenses	16,000	16,000	16,000	16,000	15,000	79,000	30
			74100	Professional Services	0	5000	0	5000	0	10,000	31
				TOTAL OUTCOME 3	820,320	821,320	625,020	127,320	106,020	2,500,000	
PROJECT MANAGEMENT											
UNDP/ MEP	62000	GEF	71800	Contractual Services – Imp Partner	42,000	39,994	40,997	39,994	42,000	204,985	32
			74599	Direct Project Cost	1003	2,006	0	2,006	0	5,015	33
				TOTAL MANAGEMENT	43,003	42,000	40,997	42,000	42,000	210,000	
TOTAL PROJECT					1,239,483	1,211,480	1,056,377	500,480	428,390	4,436,210	

Summary of Funds						
Source	Year 1	Year 2	Year 3	Year 4	Year 5	Total
GEF	1,239,483	1,211,480	1,056,377	500,480	428,390	4,436,210
National Government	3,027,200	3,027,200	3,027,200	3,027,200	3,027,200	15,136,000
Local Government	1,560,000	1,560,000	1,560,000	1,560,000	1,560,000	7,800,000
Total	5,828,683	5,795,680	5,643,577	5,087,680	5,015,590	27,372,210

Budget Notes	
Component 1	
1	International legislative / legal consultant to support establishment of national regulatory and institutional framework on ABS under Component 1- 12 weeks * 3,000 = 36,000; Environmental economist / finance specialist to support development of financial mechanisms for benefit sharing – 4 weeks * 3,000 = 12,000; International Evaluation Expert for mid-term and final evaluation of Component 1– 3 weeks * 3,000 = 9,000. See details in Annex C
2	Senior legislative / legal expert for legal aspects – 48 weeks * 1,000 = 48,000; Information and data specialist – 12 weeks * 700 = 8,400; Financial specialist – 8 weeks * 700 = 5,600; Evaluation specialist for mid-term and final evaluation of Component 1 – 2 weeks * 700 = 1400. See details in Annex C.
3	Local Senior technical advisor to support establishment of national regulatory and institutional framework on ABS under Component 1- 40 weeks * 1,000 = 40,000; Regulatory and institutional expert for regulatory / institutional aspects of ABS framework establishment – 144 weeks * 700 = 100,800, Communications Consultant-80weeks *500=40,000; Project monitoring and evaluation specialist/advisor--80weeks *500=40,000, and Project financial specialist/advisor--80weeks *500=40,000.

	; See details in Annex C.
4	Subcontractor for establishment of national ABS Clearing-House, including data and information collecting– 60,000.
5	Stakeholder consultations and decision-making meetings under Component 1, meetings and workshops for monitoring and guiding the implementation of the project. Participating national and international workshops related to component 1.
6	Travel of local and international consultants and officials for implementation under Component 1 as well as international study tours for national and local officials. International travel for participating Protocol negotiations and related international activities.
7	necessary equipment for working, office use , and hardware and software for ABS Clearing-House
8	Printing and publication of knowledge products, posters, leaflets and workshop materials for Component 1.
9	Communications including telephone, internet, e-communication etc.,
10	Contingency expenses and transportation for component 1.
Outcome 2	
11	International Evaluation Expert for mid-term and final evaluation of Component 2 – 3 weeks * 3,000 = 9,000. See details in Annex C.
12	Evaluation specialist for mid-term and final evaluation of Component 1 – 2 weeks * 700 = 1400. See details in Annex C.
13	Local Senior technical advisor to support ABS capacity building and awareness raising under Component 2 - 30 weeks * 1,000 = 30,000; Regulatory and institutional expert for capacity building and awareness raising related to regulatory / institutional aspects under Component 2 - 38 weeks * 700 =26,600; Sub-national liaison officer for capacity building under Component 2 - 100 weeks * 700 = 70,000. Project monitoring and evaluation specialist/advisor--80weeks *500=40,000, and Project financial specialist/advisor--80weeks *500=40,000. Communications Consultant-80weeks *500=40,000 See details in Annex C.
14	Sub-contracts for: (i) Training materials and programme for ABS - 160,000; (ii) Organization of trainings and related consultations30,000; (iii) Platform to enable sharing of technology and knowledge resources – 100,000.
15	Stakeholder consultations and decision-making meetings and trainings under Component 2.
16	Travel of local and international consultants and officials for training and other capacity raising activities Component 2
17	Equipment related to project implementing, office use including equipment for checkpoints
18	Printing and publication of knowledge products, posters, leaflets , workshop materials and communications including telephone, internet, e-communication etc. for awareness raising under Component 2.
19	Communications including telephone, internet, e-communication etc.,
20	Contingency expenses and transportation for component 2.
Component 3	
21	International legislative / legal consultant to advise on: (i) institutional arrangements and procedures in pilot areas, and (ii) analysis of legal implications of lessons learned under pilots under Component 3 - 8 weeks * 3,000 = 24,000; International Evaluation Expert for mid-term and final evaluation of Component 3 – 3 weeks * 3,000 = 9,000. See details in Annex C
22	Senior legislative / legal expert to contribute to analysis of lessons learned under Component 3 pilots – 2 weeks * 1,000 = 2,000. Evaluation specialist for mid-term and final evaluation of Component 3 – 2 weeks * 700 = 1400.
23	Local Senior technical advisor to support: (i) work with sub-national authorities and (ii) dissemination of lessons and experience from pilots under Component 3 - 30 weeks * 1,000 = 30,000; Regulatory and institutional expert for support to regulatory / institutional aspects of pilots - 38 weeks * 700 = 26,600; Sub-national liaison officer for technical support to implementation of pilots - 100 weeks * 700 = 70,000. Project monitoring and evaluation specialist/advisor--

	80weeks *500=40,000, and Project financial specialist/advisor—80 weeks *500=40,000. Communications Consultant-80weeks *500=40,000 See details in Annex C.
24	Sub-contracts for development of comprehensive ABS action plans to scale up pilot demonstrations into full ABS implementation with Yunnan, Guangxi and Hunan EPBs and other pilot provinces EPBs (if any newly added as the project implementing) under Output 3.1
25	Sub-grants to Yunnan, Guangxi and Hunan EPBs and other pilot provinces EPBs (if any newly added as the project implementing)for implementation of pilots –1 ,551,000.
26	Stakeholder consultations and decision-making meetings and any necessary trainings under Component 3.
27	Travel of local and international consultants Component 3
28	Printing and publication of knowledge products, posters, leaflets and workshop materials for awareness raising and communications including telephone, internet, e-communication etc. under Component 3
29	Communications including telephone, internet, e-communication etc.,
30	Contingency expenses and transportation for component 3.
31	Audit cost
Project Management Costs	
32	Project manager - 170 weeks * 650 = 110,500; Project assistant – 188.97 weeks * 500 – 94485
33	Direct Project Costs – This will cover the request of direct project services from IP in area of procurement of goods and services and recruitment of consultants. LOA is expected to be finalized and signed with Prodoc.

SECTION IV: ADDITIONAL INFORMATION

PART I: Other agreements

CO-FINANCING LETTERS



Foreign Economic Cooperation Office
Ministry of Environmental Protection of China

环境保护对外合作中心
中华人民共和国环境保护部

Mr. Adriana Dinu
Executive Coordinator
UNDP - Global Environment Finance,
Sustainable Development Cluster
Bureau for Policy and Programme Support
United Nations Development Programme

NO. OF PAGES: 1 (Including this sheet)
August 21, 2015

Dear Mr. Dinu,

**Subject: Counterpart Fund Commitment Letter of Developing and
Implementing the National Framework on Access and Benefit Sharing of
Genetic Resources and Associated Traditional Knowledge**

This letter is to confirm the offer of co-financing support to the project Developing and Implementing the National Framework on Access and Benefit Sharing of Genetic Resources and Associated Traditional Knowledge. In the five-year period of project implementation, Foreign Economic Cooperation Office, Ministry of Environmental Protection, hereof cordially consents to the counterpart fund USD 15,136,000 (both in cash and in kind, by the ratio of about 1: 5 to GEF fund) to secure the successful implementation of the project. The local co-financing from Hunan Province, Guangxi Zhuang Autonomous Region and Yunnan province has been confirmed in written forms, and the total amount of local co-financing is USD 7,800,000.

Sincerely yours,

Li Pei
Deputy Director General
Foreign Economic Cooperation Office
Ministry of Environmental Protection of People's Republic of China

Cc: Department of International Finance Cooperation, Ministry of Finance of the
People's Republic of China

5 Houyifang Hutong, Xicheng District, Beijing 10035, China 中国北京西城区后英房胡同5号 (100035)
Tel. 电话: +86-10-82268810; Fax. 传真: +86-10-82200510

环境保护部环境保护对外合作中心

关于全球环境基金“建立和实施遗传资源和相关传统知识获取与惠益分享国家框架项目”配套资金的承诺函

联合国开发计划署驻华代表处：

为确保全球环境基金“建立和实施遗传资源和相关传统知识获取与惠益分享国家框架”项目顺利实施，我中心代表环境保护部承诺，将在项目执行期的5年内以现金和实物形式，按照约1:5的比例，为该项目提供1513.6万美元配套资金。项目试点示范省——湖南省、广西壮族自治区和云南省财政厅分别以书面形式确认了对项目的配套资金，总金额为780万美元。

特此承诺。



环境保护部环境保护对外合作中心

2015年8月21日

抄 送：财政部国合司。

LETTER OF AGREEMENT FOR UNDP SUPPORT SERVICE

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE FOREIGN ECONOMIC COOPERATION OFFICE FOR THE PROVISION OF SUPPORT SERVICES

Dear Ms. Li Pei
Deputy Director General, Foreign Economic Cooperation Office, MEP

1. Reference is made to consultations between officials of the *Foreign Economic Cooperation Office, Ministry of Environment Protection* (hereinafter referred to as "FECO/MEP") and officials of UNDP with respect to the provision of support services by the UNDP country office for the project. UNDP and FECO/MEP hereby agree that the UNDP country office may provide such support services at the request of FECO/MEP through its institution designated in the relevant project support document or project document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of FECO/MEP -designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of FECO/MEP or its designated institutions, the following support services for the activities of the project:

- (a) Identification and/or recruitment of project and programme personnel;
- (b) Procurement of goods and services; and
- (c) Other project related actions as needed and requested in addition to the country office's project oversight support covered under the GEF implementing Agency fee.

4. The procurement of goods and services and the recruitment of project personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the project support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a project, the annex to the project support document is revised with the mutual agreement of the UNDP Country Director and the designated institution.

5. The relevant provisions of the Standard Basic Assistance Agreement between the Government of China and the United Nations Development Programme in China signed on January 29 1979 (the "SBAA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the project support document or project document.

herein shall be limited to the provision of such support services detailed in the annex to the project support document or project document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA and the project support document or project document.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the project support document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

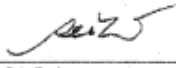
9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office three signed copies of this letter. Upon your signature, this letter shall constitute an agreement between the FECO/MEP and UNDP on the terms and conditions for the provision of support services by the UNDP country office for the project.



Patrick Haverman
Deputy Country Director
United Nations Development Programme

[Date]



Li Pei
Deputy Director General
Foreign Economic Cooperation Office
Ministry of Environment Protection

July 31, 2015

Attachment

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the Foreign Economic Cooperation Office, Ministry of Environment Protection, the institution designated by the Government of China and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project *Developing and Implementing the National Framework on Access and Benefit Sharing of Genetic Resources and Associated Traditional Knowledge* (PIMS#: 5310).

2. In accordance with the provisions of the letter of agreement signed on July 31, 2015 and the project document, the UNDP country office shall provide support services for the project as described below.

3. Support services to be provided:

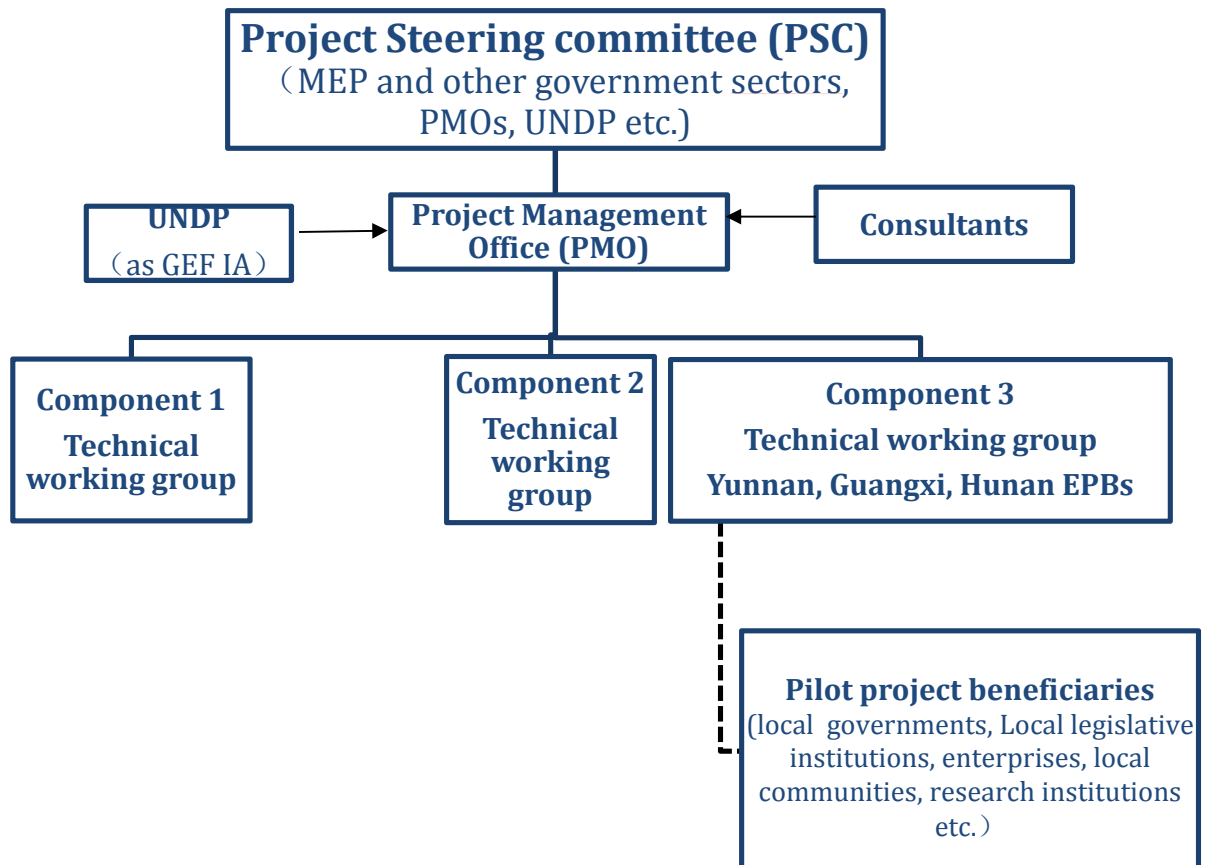
Support services (insert description)	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
1. Recruiting five consultants on evaluation and legislation	To be recruited during 2016 -2019 as per AWP.	As per UPL, the service fee per case is US\$ 1,003.	ATLAS billing -Estimated amount: US\$ 5,015.
2.			
3.			

4. Description of functions and responsibilities of the parties involved:

Description of functions and responsibilities of the parties involved is as per the project document. UNDP country office will provide the services as stated above upon the request of the Foreign Economic Cooperation Office, Ministry of Environment Protection. The reimbursement of the UNDP support cost will be recorded as per transactions based on the established UNDP financial regulations and rules.

PART II: Organigram of Project

Table 10: Project Organigram



PART III: Terms of Reference for key project staff

NATIONAL PROJECT DIRECTOR

Background

222. The National Project Director (NPD) will be responsible for providing government oversight and guidance for project implementation, including the coordination of project activities among the main parties to the project: the Government National Executing Agency (NEA) and executing partners, the Project Manager, consultants, and UNDP, including oversight of the Project Management Unit. This position will be co-financed by MEP.

Duties and Responsibilities

223. Specifically, the NPD works in close collaboration with the Project Manager, as well as UNDP. His/her responsibilities will include:

- Ensure that the project document and project revisions requiring Government's approval are processed smoothly through the Government NEA in accordance with established procedures;
- Prepare work plans in discussion with the Project Manager, UNDP and consultants;
- Mobilise national institutional mechanisms for the smooth progress of the project;
- Ensure the smooth and effective functioning of the PSC including NEA representation on these bodies;
- Review project progress and financial reports and other project outputs;
- Provide direction and guidance on project-related issues;
- Provide advice and guidance to the project team;
- Approve financial transactions.

PROJECT MANAGER

Background

224. The Project Manager (PM), will be a locally recruited national selected based on an open competitive process. He/She will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors

225. The PM is accountable to MEP and the PSC for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. The PM will report to the UNDP CO in close consultation with the NPD for all of the project's substantive and administrative issues. From the strategic point of view of the project, the PM will report on a periodic basis to the Project Steering Committee (PSC). Generally, the PM will be responsible for meeting government obligations under the project, under the national execution modality (NEX). He/She will perform a liaison role with the Government, UNDP and other UN Agencies, NGOs and project partners, and maintain close collaboration with other donor agencies providing co-financing.

226. Duration: 5 years, part-time, based at the Project Management Unit.

Duties and Responsibilities

- The PM will, with the support of the Project Assistant, manage the implementation of all project activities, including:
- Supervise and coordinate the production of project outputs, as per the project document;
- Mobilize all project inputs in accordance with UNDP procedures for nationally executed projects;
- Prepare technical specifications and TORs for contractors or subcontractors and ensure contractors' deliverables;
- Coordinate the recruitment and selection of project personnel including consultants and subcontractors for PSC approval;
- Supervise and coordinate the work of all project staff, consultants and sub-contractors;
- Prepare and revise project work and financial plans for PSC approval and allocate resources according to these documents;
- Coordinate and oversee implementation of the project's monitoring and evaluation plan;
- Liaise with UNDP, MEP, relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities;
- Facilitate administrative backstopping to subcontractors and training activities supported by the Project;
- Oversee and ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF and other oversight agencies;
- Disseminate project reports and respond to queries from concerned stakeholders;
- Coordinate secretarial services for the smooth operation of the PSC and TWG in close consultation with MEP and UNDP CO, including logistical arrangements for meetings, preparation of meeting agendas and recording and dissemination of meeting reports in a timely manner;
- Report on project implementation progress to the Project Steering Committee and Technical Working Group, and ensure the fulfilment of PSC directives;
- Oversee the exchange and sharing of experiences and lessons learned with relevant integrated conservation and development projects nationally and internationally;
- Ensure the timely and effective implementation of all components of the project;
- Oversee implementation of the stakeholder participation plan and assist community groups, municipalities, NGOs, staff, students and others with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities;
- Oversee an up-to-date accounting system to ensure accuracy and reliability of financial reporting, and monitor project funds and resources;
- Oversee an effective record-keeping system for all project-related documents and information;
- Coordinate duty travel, seminars, public outreach activities and other project events;
- Coordinate, assist and monitor partner scientific institutions with the initiation and implementation of all pilot projects and monitoring components of the project;
- Ensure that UNDP Environmental and Social Screening Procedure safeguards are applied to project implementation.

Qualifications, Skills and Experience

- Bachelor's degree or equivalent in Biodiversity/Environmental Science/Environmental Law/Natural Resources Management or a related discipline. Work experience in lieu of formal qualifications will also be considered;
- At least 5 years of relevant working experience and a solid understanding of biodiversity conservation, ideally including access and benefit-sharing (ABS) and traditional knowledge (TK) issues;
- Knowledgeable in CBD subject matters, ideally relating to ABS and ATK;
- Understanding of political, institutional and environmental governance issues associated with biodiversity in China;
- At least 5 years of project/programme management experience and demonstrated ability to effectively coordinate a large, multi-stakeholder project; experience of managing international projects and familiarity with UNDP/GEF projects an advantage;
- Working experience with ministries, national or provincial institutions concerned with natural resource management and environmental protection is an advantage;
- Demonstrated ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project;
- Strong drafting, presentation and reporting skills;
- Strong computer skills, in particular mastery of all applications of the MS Office package and internet search;
- Excellent oral and written communication skills in Chinese and English are a requirement.

PROJECT ASSISTANT

Background

227. The Project Assistant will be locally recruited based on an open competitive process. He/she will be responsible for the overall administration of the project. The Project Assistant will report to the Project Manager. Generally, the Project Assistant will be responsible for supporting the Project Manager in meeting government obligations under the project, under the national execution modality (NEX).

228. Duration: 5 years, based at the Project Management Unit.

Duties and Responsibilities

- Collect, register and maintain all information on project activities;
- Contribute to the preparation and implementation of progress reports;
- Provide relative documents accordingly to monitor project activities, budgets and financial expenditures;
- Advise all project counterparts on applicable administrative procedures and ensure their proper implementation;
- Maintain correspondence and communication at the level of project management;
- Provide support to the project financial specialist on the preparations of project work-plans and operational and financial planning processes;
- Assist in procurement and recruitment processes;
- Assist in the preparation of payments requests for operational expenses, salaries, insurance, etc. against project budgets and work plans;
- Follow-up on timely disbursements by UNDP CO;

- Receive, screen and distribute correspondence and attach necessary background information;
- Prepare routine correspondence and memoranda for Project Manager's signature;
- Assist in logistical organization of meetings, training and workshops;
- Prepare agendas and arrange field visits, appointments and meetings both internal and external related to the project activities and write minutes from the meetings;
- Maintain project filing system;
- Maintain records over project equipment inventory; and
- Perform other duties as required.

Qualifications

- A post-school qualification (college diploma, or equivalent);
- At least 3 years of administrative and/or financial management experience;
- Demonstrated ability to administer project budgets, and track financial expenditure;
- Demonstrated ability to maintain effective communications with different stakeholders, and arrange stakeholder meetings and/or workshops;
- Excellent computer skills, in particular mastery of all MS Office programmes;
- Excellent written communication skills; and
- A good working knowledge of English and Chinese.

OVERVIEW OF INPUTS FROM TECHNICAL ASSISTANCE CONSULTANTS

Table 11. Overview of Inputs from Technical Assistance Consultants

Position Titles	\$/person week	Estimated person weeks	Tasks to be performed
1. Local & long term			
1.1 Chief Technical Adviser /Senior technical expert	1000	100 weeks	<p>With the support of the Project Assistant, provide technical support for the implementation of all project activities, including:</p> <ul style="list-style-type: none"> • Technically supervise and coordinate the production of project outputs to ensure the project outputs can satisfy the project's requirements. • Together with PM to prepare technical specifications and TORs for contractors or subcontractors and ensure contractors' deliverables; • Provide advices on the recruitment and selection of project personnel including consultants and subcontractors for PSC approval; • Provide technical supporting in overseeing the implementation of the project's monitoring and evaluation plan; • Provide technical supporting in preparation and submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF and other oversight agencies; • Provide technical supporting in development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities; • Monitor partner scientific institutions with the initiation and implementation of all pilot projects and monitoring components of the project; <p>And concrete expertise work</p> <ul style="list-style-type: none"> • Provide technical support to Chinese processes directed at developing regulatory and institutional elements of the national ABS framework, including relevant guidance to provincial and regional governments in development and adoption of ABS implementation (all outputs) • Support the preparation of a detailed technical outline for policies and regulatory provisions addressing access to, and sharing benefits arising from utilization of, genetic resources and related traditional knowledge, as they shall be applied in China, including a combination of various types of hard and soft instruments (Output 1.2) • Support the preparation of a detailed technical outline for new or revised regulations—on: (i) genetic resources in patent applications, (ii) establishing procedures of mutually agreed terms and prior

Position Titles	\$/person week	Estimated person weeks	Tasks to be performed
			<p>informed consent for access to and benefit sharing of genetic resources and related traditional knowledge, and (iii) ensuring that inspection of the import and export of biological resources will be operated effectively—so that they coordinate effectively with the national policies and regulatory provisions developed under this output. (Output 1.2)</p> <ul style="list-style-type: none"> • Technical support and co-ordination in the development of ABS framework implementation plans formulated in the contexts of (i) utilization of GR and derivatives for commercial purposes; (ii) utilization of ATK and derivatives used for commercial purposes; and (iii) academic/non-commercial research involving GR and ATK (Output 1.3) • Provide support to the establishment and operation of inter-governmental and inter-sectoral coordinating mechanisms (Output 1.4) (<i>Note</i>: discussions in this area should commence as early as possible) • Provide support to the process of establishing and initiating operation of an ABS Clearing-House (Output 1.4) • Provide capacity building and awareness raising support to pilot provinces and jurisdictions (Output 2.1) • Provide support to the development of platform to enable the sharing of technology and knowledge resources with Chinese stakeholders (Output 2.3) • Provide support to the development of systems and guidelines for sharing ABS-related information and knowledge among governmental units and sectors (Output 2.4) • Work with sub-national authorities to develop detailed targets related to each pilot (Output 3.3) • Ensure dissemination of lessons and experience in implementing local ABS regimes throughout China and, in particular, to target replication areas (Output 3.4)
1.2 Regulatory and institutional expert	\$700	220 weeks	<ul style="list-style-type: none"> • Provide technical support for a detailed analysis of the legal and physical situation in China regarding: (i) current legislative arrangements in areas relevant to ABS, including the manner in which existing commercial and social legislation will apply to ABS contracts and mechanisms, as well as current legislation that addresses aspects of the governance of biological and genetic resources and commodities; (ii) the extent and nature of GR and ATK in the country, (iii) the current uses and known potential of those resources; and (iv) the extent to which the ABS framework (with its ability to bring a share of benefits and technology to local communities, protected areas and ethnic minorities) might provide an incentive for more effective conservation of existing ecosystems, species and ATK (Output 1.1) • Provide technical support for the preparation of a detailed policy recommendation, setting out the various options available, summarizing the most essential information and identifying the specific issues on which formal national policy guidance will be needed in the course of national framework development (Output 1.1)

Position Titles	\$/person week	Estimated person weeks	Tasks to be performed
			<ul style="list-style-type: none"> • Provide technical support for development of ABS Framework implementation plans (Output 1.3) • Provide technical support to the establishment of inter-governmental and inter-sectoral coordinating mechanisms (<u>Note</u>: discussions in this area should commence as early as possible) (Output 1.4) • Develop information and proposals and coordinate processes and discussions needed to achieve agreement on specific institutional functional responsibilities (Output 1.4). • Provide inputs to a technical advisory committee with representatives of all relevant agencies (Output 1.4) • Analyze the legal and institutional requirements applicable to the establishment of a benefit-sharing mechanism (Output 1.5) • Provide support for regulatory and institutional aspects of institutional capacity building for ABS implementation (Output 2.1) • Technical support to administrative personnel, and other stakeholders participating in ABS negotiations, regarding implementation of, and compliance with, the pilot legislation, along with procedural requirements and other practical issues. (Output 3.2) • Develop a system to enable stakeholders, including government officials and units, to obtain advice and assistance in complying with the procedural requirements (PIC, MAT, permit and reporting), as well as "community protocols" (if they appear likely to have a role in, be recognized in, be permitted in, or be required as part of the national ABS framework)) (Output 3.2) • Prepare (on the basis of reports submitted by the Sub-national Liaison Officer) a detailed consolidation of all reports of ABS negotiations and administrative experiences documented in each pilot in the project (Output 3.4)
1.3 Communications Consultant	500	240 weeks	<ul style="list-style-type: none"> • work with a wide range of project staff, stakeholders and contractors across all outputs to ensure that the project has a major impact on awareness levels, including a wide range of sectors and target audiences (throughout output 1 to 3) • Ensure effective information delivery between central government and pilot region • Preparation and annual updating of the project's communication and awareness strategy • Baseline surveys and monitoring to determine the effectiveness of targeted awareness measures for specific audiences on specific issues, including women and minorities • Engaging key target groups including decision-makers and public, research institutions, pilot enterprises, NGOs, etc. • Leading relations with the media including press releases and on-site visits • Working with pilot project managers/coordinators to design, plan and deliver targeted awareness programmes • Publicizing the project development • Logging information and reporting on awareness activities
1.4 Project monitorin	500	240 weeks	<ul style="list-style-type: none"> • Develop and oversee the implementation of the Project's monitoring and evaluation strategy (through output 1 to 3) . Organise a working group to

Position Titles	\$/person week	Estimated person weeks	Tasks to be performed
g and evaluation specialist/ advisor			<p>finalize the M&E system for the project, including indicators and targets</p> <ul style="list-style-type: none"> Establish monitoring and evaluation plan, and technically support the implementation of monitoring and evaluation system. Organize a working group to finalize the M&E system Provide technical support to all project planning and reporting review the project outputs and provide inputs to ensure they meet the highest quality Assist in the drafting of TOR and activity descriptions where appropriate Provide comments on all project outputs
1.5 Project financial specialist/ advisor	500	240 weeks	<ul style="list-style-type: none"> Providing financial support to the successful execution of the project (through output 1 to 3). Manage all finance activities of the project, and Execute financial management procedures in line with the UNDP NEX develop financial planning and budget which contribute to the overall work plans Manage finance and prepare the annual budget, involving project auditing Review the project expenditures and ensure they meet the highest quality Review the design of project activities and TOR and workshops Finalize the quarterly financial reports;
1.6 Sub-national liaison officer (capacity building and pilots)	\$700	100 weeks	<ul style="list-style-type: none"> Provide capacity building support to management institutions including MEP, SFA, MoA and MofCOM, SIPO, MOST, State Administration of Traditional Chinese Medicine, Ministry of Culture at the central government level. (<u>Note</u>: This should enable officials to develop (or contribute to), implement and apply the policy, law and regulations that will comprise the overall ABS framework, and to undertake the interim responsibilities to support and gain experience from the pilot/demo activities undertaken under Component 3.) (Output 2.1) Provide support to help build capacity and awareness at the government level of the three pilot province/regions: Yunnan Province, Hunan Province and Guangxi Autonomous Region; and at the lower jurisdictional levels that will have responsibility for particular pilot/demos. (<u>Note</u>: This should enable provincial and lower level officials to utilize and contribute to the operation of agreed data collection and management and monitoring systems.) (Output 2.1) Provide capacity building and awareness raising to local communities, the media and the general public in two pilot provinces and one pilot Autonomous Region. (<u>Note</u>: This should aim: (i) to give provider communities, project team members and officials in the pilot jurisdictions, initial training and support in two primary areas: compliance with the ABS framework, i.e. how to comply with PIC, MAT, IRCCs or permits (as appropriate) and other documentation requirements, and negotiation of ABS contracts, (ii) to increase local interest and participation in ABS, and (iii) to encourage the wider public to seek access to China's ABS-CH and other available tools developed under this project. (Output 2.1) Facilitate discussions among relevant ABS agencies at all levels regarding implementation of the pilot legislation (Output 3.2). Document and report on lessons learned through the development of provincial/regional action plans in pilot jurisdictions (Output 3.4) Document and report on all legislative and operational instruments

Position Titles	\$/ person week	Esti- mated person weeks	Tasks to be performed
			<p>developed, experiences, activities and challenges in the course of the pilots. (Output 3.4)</p> <ul style="list-style-type: none"> Propose priorities and opportunities for replication and expansion of ABS into pilot and new sectors (Output 3.4) Prepare (on the basis of reports submitted by the stakeholder negotiation consultants or other individuals directly representing the project in individual ABS negotiations) a detailed consolidation of all reports on project-provided stakeholder support processes in ABS negotiation processes (Output 3.4)
2. Local & short term			
2.1 Senior legislative / legal expert	\$1000	50 weeks	<ul style="list-style-type: none"> Information development, high-level awareness-raising and draft suggestions for relevant policy recommendations. (Output 1.1) Primary collection and interpretation of national law and experiences to underpin detailed analysis of the legal and physical situation in China regarding: (i) current legislative arrangements in areas relevant to ABS, including the manner in which existing commercial and social legislation will apply to ABS contracts and mechanisms, as well as current legislation that addresses aspects of the governance of biological and genetic resources and commodities; (ii) the extent and nature of GR and ATK in the country, (iii) the current uses and known potential of those resources; and (iv) the extent to which the ABS framework (with its ability to bring a share of benefits and technology to local communities, protected areas and ethnic minorities) might provide an incentive for more effective conservation of existing ecosystems, species and ATK (Output 1.1) Provide technical inputs for detailed policy recommendation, setting out the various options available, summarize the most essential information and identify the specific issues on which formal national policy guidance will be needed in the course of national framework development (Output 1.1) Provide technical inputs to detailed proposals for new or revised regulations—on: (i) genetic resources in patent applications, (ii) establishing procedures of mutually agreed terms and prior informed consent for access to and benefit sharing of genetic resources and related traditional knowledge, and (iii) ensuring that inspection of the import and export of biological resources will be operated effectively (Output 1.2) Provide technical inputs to the development of administrative mechanisms and technical support systems for access to and benefit sharing of genetic resources and for improving related information exchange mechanisms. These may include, inter alia, the design and establishment of monitoring and record-keeping systems, oversight mechanisms and other tools necessary to ensure that whatever unit(s) or governmental bod(ies) are tasked with ABS implementation are able to operate through and/or coordinate with: (i) other agencies and institutions which cover or relate to any aspect of ABS, (ii) various existing collections, databases and record-keeping systems relevant to ABS, and (iii) other information systems that are being or will be developed. (Output 1.2) Technical support for development of ABS Framework implementation plans (Output 1.3) Provide technical inputs for an operational mechanism and procedures related to the processing of ABS applications and documentation (<u>Note</u>: it

Position Titles	\$/person week	Estimated person weeks	Tasks to be performed
			<p>will be valuable for the project if these are set up early on an interim basis, in order to facilitate the functioning and usefulness of the pilots) (Output 3.2)</p> <ul style="list-style-type: none"> • Based on the preliminary decisions regarding the development of the national ABS framework and in coordination with the International Legislative/Legal Consultant, develop draft/suggested demo ABS legislation including PIC, MAT, guidance for ABS contract negotiations, permit or other form for reporting on negotiations and administrative oversight requirements, as well as "community protocols" (if they appear likely to have a role in, be recognized in, be permitted in, or be required as part of the national ABS framework) (Output 3.2) • Working closely with the international legislative consultant, prepare requested contributions to detailed analysis of: (i) the extent to which each element of the draft national framework as planned was implemented and/or validated through the pilots; (ii) elements as to which the pilots underscore challenges that need to be addressed, and; (iii) elements that were not addressed through the pilots. (Output 3.4)
2.2 Stakeholder liaison specialists (sub-national) ¹²	\$500	120 weeks	<ul style="list-style-type: none"> • Provide advisory services to stakeholders who have sought advice and assistance in complying with the procedural requirements (PIC, MAT, permit and Reporting, as well as the process of development and authorization of "community protocols (if they appear likely to have a role in, be recognized in, be permitted in, or be required as part of the national ABS framework)) • Prepare detailed report of each process on which the consultant has provided any type of stakeholder/negotiation advice, consultation or other service
2.3 Legislative / legal experts (sub-national) ¹³	\$500	120 weeks	<ul style="list-style-type: none"> • Based on draft/suggested demo ABS legislation developed by international and national legislative/legal experts, draft proposed pilot legislation for the pilot jurisdiction, including relevant procedures for PIC, MAT, permit applications, reporting and administrative oversight requirements, as well as "community protocols" (if they will have a role in the pilot legislation). (Output 3.2) • Identify and draft plans/procedures for assigning responsibility for the implementation of the pilot legislation. (Output 3.2)
2.4 Information and data specialist	\$700	12 weeks	<ul style="list-style-type: none"> • Assess and report on the relationship between the overall ABS framework and pre-existing databases maintained by various ministries, agencies and other institutions throughout China. (Output 1.4) • Provide technical support to discussions regarding online data sharing and access (Output 1.4) • Based on the above assessment and discussions, develop a national ABS Clearing-House (ABS-CH) (Output 1.4)
2.5 Financial specialist	\$700	8 weeks	<ul style="list-style-type: none"> • Conduct an in-depth analysis of the benefit-sharing provisions adopted under Output 1.1 (Output 1.5)

¹² To be recruited and funded through sub-grants executed by each province on the basis of ToRs and competitive selection agreed with the PMU.

¹³ To be recruited and funded through sub-grants executed by each province on the basis of ToRs and competitive selection agreed with the PMU.

Position Titles	\$/ person week	Estimated person weeks	Tasks to be performed
			<ul style="list-style-type: none"> Assess the need for, and options regarding, one or more benefit-sharing mechanisms, in line with the above provisions (Output 1.5) Provide technical inputs for a model benefit-sharing mechanism, focusing on options and mechanisms needed and specific steps required in order to establish the mechanism (Output 1.5)
2.6 Local evaluation Expert	\$700	6 weeks	<ul style="list-style-type: none"> Local evaluation expert will assist the international evaluation expert for the mid-term and the final evaluations. He/she will work with the international evaluation consultant in order to assess the project progress, achievement of results and impacts. The expert will organize national meetings and site level data to enable international evaluation expert to develop a draft evaluation report, discuss it with the project team, government, and UNDP, and as necessary participate in discussions to extract lessons for UNDP and GEF. The standard UNDP/GEF project evaluation TOR will be used.
3. International and short term			
3.1 Legislative / legal expert	\$3000	20 weeks	<ul style="list-style-type: none"> Studying international experience on ABS, including ABS framework and legislation analysis: (output 1.1) Information development, high-level awareness-raising and draft suggestions, based on international experience, for policy recommendations to State Council (Output 1.1) Support the development of an outline, workplan and technical comments on a detailed analysis of the legal and physical situation in China related to establishment of an ABS Framework (Output 1.1) Provide technical inputs on a detailed policy recommendation for establishment of an ABS Framework (Output 1.1) Review, and provide technical feedback on, ABS Framework implementation plans (Output 1.3) Review, and provide technical feedback on, proposals for an operational mechanism and procedures related to the processing of ABS applications and documentation (Output 1.4) Advise on the development, based on the preliminary decisions regarding the development of the national ABS framework, of draft/suggested demo ABS legislation including PIC, MAT, guidance for ABS contract negotiations, permit or other form for reporting on negotiations and administrative oversight requirements, (also "community protocols," if they are expected to have a role in the national ABS framework) (Output 3.2) Remain available to advise Stakeholder/Negotiation Consultants with regard to particular issues and challenges (Output 3.2) Prepare and coordinate other legislative input into a detailed analysis of : (i) the extent to which each element of the draft national framework as planned was implemented and/or validated through the pilots; (ii) elements as to which the pilots underscore challenges that need to be addressed and (iii) elements that were not addressed through the pilots (Output 3.4)
3.2 Environmental economist / finance	\$3000	4 weeks	<ul style="list-style-type: none"> Working closely with national financial specialist, and national and international legislative/legal specialists, make recommendations regarding the design and operation of one or more benefit-sharing mechanism, focusing on options and mechanisms needed and specific steps required in order to establish and operate the mechanism (Output 1.5)

Position Titles	\$/person week	Estimated person weeks	Tasks to be performed
expert			
3.3 Evaluation expert (mid-term and final evaluations)	\$3000	9 weeks	<ul style="list-style-type: none"> The international evaluation expert will lead the mid-term and the final evaluations. He/she will work with the local evaluation consultant in order to assess the project progress, achievement of results and impacts. The expert will develop a draft evaluation report, discuss it with the project team, government, and UNDP, and as necessary participate in discussions to extract lessons for UNDP and GEF. The standard UNDP/GEF project evaluation TOR will be used.

PART IV: Stakeholder Involvement Plan

229. Project preparation included pilot site visits and associated consultations with two of the project's key stakeholder groups (governmental representatives and current users of target GR and/or ATK) in the pilot areas. The project executing agency, MEP/FECO, also organized preparatory consultations with key Ministries at national level. Generally, project design was a participatory process, in line with UNDP's and GEF's requirements. Gender issues were specifically considered, including at the demonstration project (community) level.

230. The key stakeholders include central government agencies concerned with the governance of ABS implementation (MEP MoA, the Ministry of Culture, SIPO, SFA, MOFCOM, the State Administration of TCM, the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and the Ministry of Science and Technology (MOST)); as well as research institutions involved in genetic and biochemical analysis of wild and domesticated plant animal and fungus species; and private sector organizations and businesses involved in biotechnology and the development of products through the utilization of the genetic resources of Chinese species.

231. Component 1 of the project will involve extensive national and sub-national stakeholder engagement in the review, improvement and adoption of the proposed national framework and implementing regulations on ABS, the institutional framework and supporting measures for their implementation, and the associated financial mechanism to receive proceeds from ABS agreements for re-investment in biodiversity conservation. In addition, research organizations, regulatory officials and sectoral stakeholder associations will participate in the development of relevant codes of conduct or guidelines for research on traditional knowledge and genetic resources and the establishment of a supportive institutional framework will be developed in consultation with related research organizations and regulatory stakeholders.

232. Component 2 primarily aims to improve the capacities of all primary stakeholder groups (government officials, users, middlemen, and providers.) The project will engage with these groups through targeted outreach, with the goal of improving their understanding of ABS and its rules and procedures, including those relating to PIC and MAT and their application, contractual negotiations, permits and other documentation of the ABS transactions, rights and roles of local communities and ongoing post-negotiation monitoring, tracking and compliance processes. It will also inform stakeholders about the decisions taken at WIPO and FAO with regard to the outcomes of their recent and future negotiations relevant to ABS. This outreach and capacity-building will ensure better understanding of national and international provisions of ABS and enhance the implementation of the proposed national ABS framework at all levels.

233. Component 3 involves the development of pilot ABS agreements, with attention to the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits. This Component's activities will be undertaken through six pilots, in two provinces (Hunan and Yunnan) and one (province-level) autonomous region (Guangxi Zhuang). As such it will contribute to the understanding of practical issues associated with the functioning of ABS systems and procedures, providing information that can enable better legislative development of the national ABS framework. It may also provide experience with a variety of value-chain and definitional questions, and enable validation of basic assumptions regarding the relationship of ABS to conservation, sustainable development and the improvement of rural and traditional livelihood.

234. The pilot projects will be realized at the community level. Stakeholders actively participating in the implementation of the pilot projects will include women and men, young and old, individuals and communities. All of the pilots will involve significant awareness raising and capacity building activities. Thus, component 3 aims to provide experience with the practical operation of critical aspects of the ABS framework by implementing pilot legislation and applying it to every stage of the ABS negotiating process on individual ABS transactions, from initial feasibility analyses for a given

genetic resource or element of ATK, through identification and prequalification of users, including all procedural and negotiating processes of the finalisation and execution of all necessary ABS documentation (PIC, MAT, ABS contract, ABS permit, certificate of compliance (as appropriate), monitoring, etc.) of each ABS transaction to the implementation of the obligations comprised in those documents, including benefit-sharing (if the work produces benefits within the time period of the project.) To this end, the Project will develop pilot legislation and procedures in each of the 6 pilot areas, in conjunction with the primary agencies that will implement the pilots in each area. As those agencies' staff are trained in implementation, their work will both provide insights into the challenges and options for practical ABS implementation and promote the initial use of the pilot ABS framework in generating benefits to the users participating in the process and sharing those benefits with the providers – often among the poorest communities in the region. By undertaking the initial ABS processes entirely under the pilot legislation the Component 3 will provide an essential background for the completion of Component 1, enabling the legislative developers to gain a clearer understanding of their options, and some indication of how well each option is suited to the national legal and practical context in China.

235. During the PPG, a preliminary stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in project implementation. **Table 1**, above lists the key stakeholders associated with establishing a national ABS framework in China. Identified stakeholders and their roles in each pilot are described in Annex 1: Pilot Fact Sheets. A finer plan will be developed during the inception phase.

236. The local management arrangements for each pilot project will be described in the exchange of letters between the project executing partners, and are expected to specify representation of principal stakeholders including relevant sub-national authorities, local communities and other partners in their implementation. There will be equitable participation of women and ethnic minorities on local level committees and groups related to PIC negotiations, community co-management, training and awareness activities.

Coordination with related initiatives

237. The project will fully coordinate with the on-going GEF-UNDP China Biodiversity Partnership and Framework for Action (CBPF) Project, executed by MEP, and create co-benefits and synergies through data and information sharing. CBPF is designed to enhance CBD implementation in China in which access to and benefit sharing of genetic resources and traditional knowledge pertinent to biodiversity is treated as an integral and crucial component. The project will also provide technical support where appropriate to other existing and emerging GEF financed projects in China, for possible pilots of ABS at the local level as a means for realising the benefits from conservation of biodiversity by the communities and local authorities. Coordination and collaboration between projects can avoid duplication and improve cost effectiveness of the projects. As appropriate, the project will adopt measures such as hiring shared experts, introducing external outputs, and conducting joint research to enhance coordination and collaboration among different initiatives.

238. The proposed project will also coordinate with other ABS related projects nationally and internationally. These include ICIMOD's ABS Programme, a regional programme launched in 2004 with 13 countries including China. The thrust of the programme has been to raise awareness on ABS with reference to the various marginalised segments of society in the Eastern Himalayan region. The programme has conducted a series of awareness raising activities targeting policy makers, civil society groups, local communities and media, through regional, provincial, and local level workshops. A regional ABS framework has also been drafted, which will provide an overarching framework for development of the national and provincial legislation. ICIMOD's emphasis on assessing the status of genetic knowledge of particular medicinal plants will be particularly useful for the pilot in this project. The programme has also initiated a process of developing policy-based research through a set of consultations and field assessments of traditional knowledge and customary arrangements in their pilot project sites in collaboration with its partners. These policy-based research documents are

expected to influence the long-term implementation of ABS regimes at the national level, through the creation of an empirical foundation for the rights of marginalised communities to genetic resources and associated traditional knowledge. Several Chinese institutions including the [Chinese Academy of Sciences \(CAS\)](#) and [Kunming Institute of Botany](#) are collaborating partners for the programme. During the PPG phase, details for further collaboration will be explored based on close examination of the ICIMOD programme achievements and future plans.

239. Other related initiative, partners and stakeholders will be invited to participate the project to enrich practice, investigation, and analysis of ABS institution, and provide experiences for ABS in China. There are some projects using genetic resources going on in China, for example, the PharmaSea Project through the Wuhan University team which joined the PharmaSea Project in 2012. That team has collected some microorganism species from the mangrove habitats in the coast of Hainan Island. Following laboratory research and development, they have found some active biochemical compounds for medicinal use and applied for several patents. Though a few bio-companies have contacted with them for patent transfer or production, no agreement has been reached by far. While the present project does not deal with marine genetic resources in its pilots, nevertheless it will continue to coordinate with the PharmaSea project, learning from the experiences, exploring synergies and their inputs for the ABS framework establishment and capacity building components.

Project Annexes

Annex 1: Pilot fact sheets

PILOT #1 FACT SHEET

1. **Species name:** *D. officinale*
2. **Location of pilot:** Xishuangbanna Prefecture, Yunnan Province
3. **ABS Focus:** GR and ATK
4. **Historical and conventional use(s), and ATK aspects:**
As documented in ancient medical books (including Compendium of Materia Medica), Dendrobe is of medical use for curing vascular diseases and phlebocholosis.
5. **Development:**
 - 1) *Novel development and utilization*
 - Current development is primarily focused on the uses of dendrobe to address intestinal and stomach complaints, diabetes and sore throat symptoms. Recently, China Pharmaceutical University found that Dendrobe was rich in dendrobium polysaccharides and crude polysaccharides, which are being studied in connection with these uses.
 - Biotech companies are developing beverage products that utilize the dendrobe's effectiveness against sore throats.
 - Other recent development activities have focused on properties valuable in cosmetics.
 - 2) *Development companies, activities and major products*
 - **Guangming Corporation** (a company that produces and processes Dendrobe in Xishuangbanna): processing harvested dendrobium into various forms -- granules, lozenges, wine / beverage, Capsules, etc. mostly for local market
 - **Guangming Corporation – Jinling Pharmaceutical:** use of Dendrobe in medicines, which including "Mailuoling, eyesight-improving bolus of noble dendrobium, Dendrobe, Jinsangzihoubao, dendrobe liquid, etc." as well as granules. Some products sold in Germany, Malaysia, Thailand and the USA.
 - **Xishuangbanna Zengliang Biotech Co., LTD:** dendrobe reproduction (agriculture) activities whose products include seedlings, capsules, tea bags; powder and Granules, etc. This company operates in cooperation with various Chinese research institutions and investors.
 - **Xishuangbanna Tianzi Company:** extraction of esters for export as either raw materials or semi-manufactured goods" for sale to foreign buyers in the cosmetics sector.
 - 3) *Identification of chemical compounds*

The compound Dendrobine has been identified as present in the Dendrobe, as are ten other elements believed to be beneficial to human health. The presence of anti-tumorals (Chrysotoxene and Erianin) was also noted. As found in this species, all of these are potential focuses for future research, to determine if they include special or valuable properties. More technical breakthroughs are thus expected in the future.

4) Description of R&D investments related to the genetic resources in question (2016-2020):

At least three companies of Guangming Corporation, Jinling Pharmaceutical and

Xishuangbanna Zengliang Biotech Co., LTD, have planned to invest the development of sendrobe for new products. The R&D investments related to the genetic resources and associated TK in question during 2016-2020 is estimated to be about 2 million US dollars.

6. Use type(s):

- 1) Food: Premium healthcare products and beverage;
- 2) Medicine: Used to address high blood pressure, excess fat, intestinal and stomach diseases and diabetes. It also has some efficacy in relieving sore throat;
- 3) Cosmetics: Extraction of fragrant substances

7. ABS arrangements: No (formal or informal ABS – PIC, MAT, ABS Contract, Benefit-sharing, etc.) The following describes current use experience:

(1) *the process of access*: Guangming Corporation original germplasm accessed through the forestry sector, which enabled the original wild collection from Wenshan, Yunnan and other areas.

(2) *the process of production*: Dendrobe seedlings are being cultivated by local farmers through the standard agricultural pattern of “company + cooperative + farmer household”, in which, farmers obtain Dendrobe cuttings (tissue culture), fertilizers and production infrastructure, such as plastic tent from the companies, and grow and harvest the plants, pursuant to contracts with those companies, which then purchase the products.

8. Stakeholder identification

Stakeholder	Description
Providers	Local communities and farmer households
Middlemen	Academic institutions, high education units
Users	Guangming Corporation-Dendrobe company of Xishuangbanna Guangming Corporation- Jinling Pharmaceutical; Xishuangbanna Zengliang Biotech Co, LTD; Tianzi company, etc.
Local government	EPB of Yunnan Province, prefectural government of Xishuangbanna
Local communities	Related minority local communities in Xishuangbanna area

9. Socio-economic and environmental elements

Element	Description
Policy environment	In accordance with State Council’s Measures for Promoting Biological Industry, Yunnan has taken the lead in this area, having adopted a number of bioindustry-promoting policy measures, and commenced legislative work toward their implementation, including the establishment of a Provincial Office for Bio-industry Development, supported by comprehensive coordination service organizations at the prefectural and county levels. Among the measures that have been taken or are in process with regard to the conservation of biological and genetic resources and associated traditional knowledge are the following: (1) Further provincial legislation enhancing its existing laws on the conservation of biodiversity, and strict management of those laws; (2) Ongoing coordination and implementation of relevant projects and activities, including “Application and Demonstration of the Importance of Natural Holy Habitat in Biodiversity Conservation in Yunnan Province”, “Ethno-culture and Biodiversity Conservation in Weixi County”, “Study on Regime and Policy concerning Biological and Genetic Resources and Associated Traditional

	Knowledge in Yunnan Province” and “Survey and Catalog of Traditional Knowledge concerning Protection of Wild Animals in Yunnan Province”;
	(3) Improve relevant research institutions and platforms regarding to biodiversity conservation, such as State Plateau Wetland Research Center, the Biodiversity and Bio-geological Key Lab of CAS, the Southwestern Biodiversity Key Lab, and the Wildlife Germplasm Pool of Southwestern China; and (4) Issuance of its Provincial Biodiversity Conservation Strategy and Action Plan, which proposes, inter alia, - the establishment of a provincial ABS regime, - prioritization of actions and projects concerning conservation and sustainable use of the traditional knowledge of ethnic minorities, and - the establishment of China’s first Provincial Biodiversity Fund..
Source of funding / investment:	Government and private sector
Markets	Due to short history of development, the current market id mainly domestic.
Poverty / poverty alleviation	The development of current practices in growing and processing the dendrobe have had a positive impact on the level of employment and agricultural income, and created stable businesses within the area.

PILOT #2 FACT SHEET

1. **Traditional knowledge:** Dai Ethno-medicine

2. **Location of pilot:** Yunnan Province

3. **ABS Focus:** ATK

4. **Historical and conventional use(s), and ATK aspects:**

Dai traditional medicine is one of four major ethno-medicines in China, and it is quite an achievement of Dai people of long-term practice of disease prevention and daily life. In the philosophy of Dai medical theory, the world is comprised of “four pillars”, namely, wind, soil, water and fire. In the same time, it is believed that human body is also comprised of “four pillars”, namely wind (vital energy), water (blood), fire and soil. Human body can maintain healthy if these four pillars remain balanced, if not, then human body might subject to illnesses. The theory of “four pillars” has been used as guidance in diagnosis. Several approaches are used in disease diagnoses, such as observation, smell, inquiry and feel (of the pulse), and hence a set of unique healing methods have been developed, which include sleeping drugs, external application drugs, steaming drugs, fumigating drugs, grinding drugs and acupuncture drugs, etc.

There are three diagnose approaches in Dai medicine, namely, inquiry, observation and feeling (the pulse). It is similar to diagnosis method of other traditional Chinese medicine (TCM), but different from it theoretically. It includes more than ten kind of traditional healing techniques, such as “Hongya” (steaming treatment), “Nuanya” (sleeping drugs treatment), “Aya” (cleansing drugs treatment), “Nanya” (sitting drugs treatment), “Shaya” (acupuncture treatment), “Guoya” (wrapping drugs treatment), etc. The treatments mentioned above mainly used for curing common seen diseases as well as complex diseases, such as lumbar spondylosis, rheumatic disease, geriatric disease, diabetes, gynecological diseases and climacteric syndrome, etc.

5. **Development:**

1) Systemization, exploration, promotion and use of traditional knowledge

Through many years of practice, Dai medicine has developed not only theoretically, but also has collected rich experience in terms of diagnosis and healing diseases. Currently, Dai ethno-medicine takes the advantage of both Dai medicine and TCM, to continuously strive for innovation in terms of clinical practice as well as theoretical research.

2) Commercial development

- **Xishuangbanna Institute for Ethno-medicine and its affiliated hospital.**

Helping in the development of the modern system of Dai medicine through several years of collecting, systemization, study and exploration. The hospital has provided modern documentation of the efficacy of cures and prescriptions passed down orally through generations, enabling the use of some medical products in clinical treatment, and documenting their effectiveness.

- **Other interest:** Dai medicine is both natural and quite effective, with few negative side effects. As such it has generated interest from other companies desiring to undertake research and development to identify and develop new drugs and curative products. Research institutions and other enterprises showing interest in possible investment include Yunnan Baiyao, Yangtze Pharmaceutical, Beijing Institute of Technology and Shanghai Jiaotong University. It is believed that the reach of Dai medicine will extend to other regions of China and to other countries.

3) *Description of R&D investments related to the genetic resources in question (2016-2020):*

Xishuangbanna Institute for Ethno-medicine and its affiliated hospital has planned to invest the development of Dai traditional medicines for new products. The R&D investments related to the genetic resources and associated TK in question during 2016-2020 is estimated to be about 500 000 US dollars.

6. **Use type(s):**

Medical use (traditional prescription, traditional healing techniques, to be collected, systemized, studied, developed and utilized/sold through the Institute’s affiliated hospital.)

7. **ABS arrangements:**

No (formal or informal ABS – PIC, MAT, ABS Contract, Benefit-sharing, etc.) The following describes current use experience:

- (1) **The process of access:** a great amount of traditional prescriptions, traditional healing techniques that related to Dai ethno-medical knowledge were sourced from local communities, yet majority of those were lack of “Prior Informed Consent-PIC”, and lack of standardized ABS.
- (2) **The process of utilization:** the medical institution makes use of documented traditional Dai medical knowledge to develop medicines that with unique efficacies, and then these medicines will be clinically applied. The medical institution applies traditional healing techniques, which sourced from local communities, in local hospitals.

8. **Stakeholder identification (incl. attitudes)**

Stakeholder	Description
Providers	Local Dai ethnic communities and other areas in Xishuangbanna, Yunnan province
Users	Institute/hospital for ethno-medicine of Xishuangbanna prefecture
Local government	Government at prefecture, county and village level
Local communities	Local Dai ethnic communities (specific community to be identified)

9. **Socio-economic and environmental elements**

Element	Description
Policy environment	As a part of Yunnan Province, the Xishuangbanna Prefecture partakes of the same policy environment described for pilot #1, above, and has undertaken or participated in correlative support measures as described.
Source of funding / investment:	The Xishuangbanna Ethno-medicine Institute is a research unit affiliated with the local government. The Dai hospital is affiliated to this institute, as noted, and also provides medical services to the community. The in kind contributions of the institute are its research achievements, which are directly used by the hospital, in research, clinical applications and outpatient services.
Market	Currently the main market for these products is Xishuangbanna itself, Dai People and other minorities, but the number of patients is increasing rapidly.

PILOT #3 FACT SHEET

1. **Species name:** Luohanguo (*Siraitia grosvenorii*)
2. **Location of pilot:** Guangxi Zhuang Autonomous Region
3. **ABS Focus:** GR and its derivatives; ATK
4. **Historical and conventional use(s), and ATK aspects:**
The medical function of *Siraitia grosvenorii* is well documented in several ancient medicinal books. Local communities have been using it to cure a number of diseases, such as cold, cough, sore throat, intestinal and stomach discomfort, and blood purification.
5. **Development:**

(1) Novel development and utilization

A "natural sweetener" has been developed from *Siraitia grosvenorii*, which is characterized by the National Administration of Chinese Medicine and Ministry of Health (whether used as a food or drug) as "medicine" for the treatments of diabetes and obesity. This sweetening agent is one of most effective sweetening substances in the world. There is active international interest in acquiring extracts.

(2) Development companies and major products

- **Guilin Sanbao Pharmaceutical.** Production of extracts (in the form of capsules, liquids, pills, and granules) both for local market and for export;
- **Guilin Anhe Pharmaceutical.** production of extracts, granules, capsules, mixtures and tablets, both for local sale as traditional medicines and for export (Europe and Asia);
- **Guilin Fengrunlai Biotech Co., LTD:** production of extracts and granules and a "healthcare beverage" sold locally; and
- **Other interest:** Given to the fact that the population of people who are suffering from diabetes and obesity is on the rise in China and across the whole world, the demand for sugar replacement is on the rise too. At present, several companies are investing in extracts of *Siraitia grosvenorii*, and export preliminary extracts (derivatives of genetic resource) to overseas. Foreign biotech companies will develop healthcare products, medicines and cosmetics according to market needs. In this case, domestic companies can only be seen as middlemen, not direct users of genetic resource of *Siraitia grosvenorii*, while foreign developers are the true users of GR and ATK of *Siraitia grosvenorii*.

(3) Identification of chemical compounds

Siraitia grosvenorii extracts (Momordica glycosides) are soluble in water and without sediment. The ratio of Momordica glycosides in *Siraitia grosvenorii* extracts can be as much as 80% or higher. The degree of sweetness of Momordica-Glycosides is 300 times higher than it in sugar, while low in calorie.

4) Description of R&D investments related to the genetic resources in question (2016-2020):

A series of companies, including Guilin Sanbao Pharmaceutical, Guilin Anhe Pharmaceutical and Guilin Fengrunlai Biotech Co., LTD, have planned to invest the development of Luohanguo for new products. The R&D investments related to the genetic resources in question during 2016-2020 is estimated to be about one million US dollars.

6. Use type(s):

- (1) preliminary extracts of *Siraitia grosvenorii* are exported for development and production of beverage, medicine and cosmetics;
- (2) local companies are developing some medicines and beverage products;

Momordica glycosides are rich in amino acids, fructose, vitamins and minerals, potentially useful as flavor and cooking ingredient.

7. ABS arrangements: No (formal or informal ABS – PIC, MAT, ABS Contract, Benefit-sharing, etc.) The following describes current use experience:

- (1) **The process of access:** Germplasm of high quality originally acquired from local communities, and then replicated to produce seedlings for plantation.
- (2) **The process of production:** Similar to Pilot #1, the species is being cultivated by local farmers through the standard agricultural pattern of “company + cooperative + farmer household”, in which, farmers obtain seedlings and technical guidance on cultivation from the company, which thereafter purchases their harvest.

NOTE: The company believes that any benefit sharing obligation it has was satisfied over the course of its production relationships with local farmers. Not all of the communities from which the germplasm was sourced are involved in the commercial planting process, however.

8. Stakeholder identification:

Stakeholder	Description
Providers	Local communities, farmer households
Middlemen	Academic institute, domestic R&D institutions and companies
Users	Domestic: Guilin Sanbao Pharmaceutical Co., LTD; Guilin Anhe Pharmaceutical Co., LTD; Guilin Fengrunlai Biotech Co., LTD; Overseas: biotech companies and other commercial companies that conduct further processing of preliminary extracts
Local government	Environmental Protection Department of Guangxi Zhuang Autonomous Region ; Government of Guilin city and Lipu county.
Local communities	Government at county and village level

9. Socio-economic and environmental elements

Element	Description
Policy environment	<p>As an Autonomous region in western China, a number of preferential policies are available to Guangxi, including those addressing</p> <ul style="list-style-type: none"> - ethnic minority autonomous regions, - the development of west China, and - opening-up coastal and border areas. <p>The country has also expanded Guangxi's examination and approval authority concerning attracting direct overseas' investment.</p> <p>Its promotion of these policies, and especially its efforts to further open-up key areas, to make use of foreign investment and to improve economic conditions, Guangxi has issued a Preferential Regulation on Local Income Taxation of Foreign-funded enterprise.</p> <p>At prefectural and county levels, the most relevant governmental units for the proposed pilots are Lupo county and the municipal government of Fangchenggang, which also have the advantage of key preferential policies. In addition, Lipu has issued a Preferential Policy and Awarding Rules for Attracting Foreign Businesses and Investment concerning Industrial Projects, which incorporates several preferential policies dedicated to investment.</p>
Source of funding / investment:	Government and private sector
Markets	Main market is domestic
Poverty / poverty alleviation	The agricultural production pattern described above increases farmers' income, while enabling sustainable use of local genetic resources.
Environmental impacts	See above

PILOT #4 FACT SHEET

1. **Species name:** Golden Camellia (*Camellia nitidissima*)
2. **Location of pilot:** Guangxi Zhuang Autonomous Region
3. **Focus:** GR
4. **Historical and conventional use(s), and ATK aspects:**
An infusion prepared by steeping the dried flowers of the golden camellia is drunk by local residents. Ancient medical books reportedly document that the golden camellia may offer human health benefits.

5. **Development:**

1) *Novel development and utilization*

Large scale development of golden camellia agriculture is a recent phenomenon, attributable to the recent identification of beneficial elements of this species. Golden camellia is reportedly effective in regulating the levels of sugar, cholesterol and other and fat in the blood and in controlling blood pressure and urine glucose.

2) *Development companies and major products*

- **Guangxi Guoming Golden Camellia Science and Technology Company.** Represents its operation as marketing a series of novel varieties, products and technologies, which it has protected as privately owned intellectual property.
- **Guangxi “Guirentang” Golden Camellia Corporation.** This company has undertaken several (municipal level, provincial level, and other) research projects, leading to numerous awards and 25 filed applications for intellectual property protection. It has been the spearhead for formulating local standards for golden camellia and has developed two main series of golden camellia products, one organic and another for further processing.
- **Other interest:** Reportedly, the Golden Camellia’s medical and nutrition values, have proven attractive to commercial companies.

3) *Identification of chemical compounds*

Research indicates that a number of unique chemical compounds are found in the Golden camellia, as well as more than 400 kinds of nutrient substances. Specifically, chemical analysis indicates that it is rich in tea polysaccharides; TP (tea polyphenol); total saponins; total flavonoids; tea-pigment; caffeine; protein; vitamin B1, B2; vitamin C; vitamin E; folic acid; fatty acids; B-carotene; theanine, threonine and other dozens of amino acids; organic microelement found to be present include Germanium, Selenium, Molybdenum, Zinc and Vanadium, as well as inorganics such as Potassium, Calcium and Magnesium.

4) *Description of R&D investments related to the genetic resources in question (2016-2020):*

Both Guangxi Guoming Golden Camellia Science and Technology Company and Guangxi “Guirentang” Golden Camellia Corporation have planned to invest the development of Golden Camellia for new products. The R&D investments related to the genetic resources in question during 2016-2020 is estimated to be about one million US dollars.

6. **Use type(s)**

- 1) medical beverage;

2) tea, including powder beverage;

3) (planned) cosmetics

7. **ABS arrangements:** No (formal or informal ABS – PIC, MAT, ABS Contract, Benefit-sharing, etc.) The following describes current use experience:

(1) ***The process of access:*** the germplasm that is currently used was obtained by the companies from the Golden Camellia Nature Reserve where wild germplasm collection is forbidden, so that Reserve officials can ensure that collection does not affect the reserve or its sustainability.

(2) ***The process of production:*** The company coordinated or conducted reproduction and multiplication of the original germplasm, and now operates entirely through standard agricultural cultivation arrangements (“Company + Farmer household + Base” or “Company + Cooperative + Farmer household”), purchasing the harvested flowers at a reasonable price, as a way of guarantee farmers’ interests and encourage them to take part in planting.

8. **Stakeholder identification (incl. attitudes)**

Stakeholder	Description
Providers	Local communities and State-level Golden Camellia Nature Reserve
Middlemen	State-level Golden Camellia Nature Reserve, Research institutions and higher education units
Users	2-3 native and non-natives companies that dedicated to development of golden camellia
Local government	Guangxi Provincial Department of Environmental Protection may serve as the competent department, to provide support in terms of administration, e.g. administrative resource and co-financing. The municipal government of Fangchenggang and management unit of the nature reserve will also coordinate the demonstration work.
Local communities	Neighboring communities of the nature reserve

9. Socio-economic and environmental elements

Element	Description
Policy environment	In General, the policy environment of this pilot mirrors that of pilot #3. In addition, in Fangchenggang, the local government's 2003 Decision on Development of Golden Camellia calls for significant (more than 400%) expansion of the plantation of golden camellia. It also proposes activities to broaden the market for the camellia and brand recognition for camellias from Fangchenggang. The municipal government has also instituted an annual "Golden Camellia Festival" in the Fangchenggang area, to enhance the social and cultural aspects of the golden camellia business. Preferential policies applicable to Guangxi include policies regarding ethnic minority autonomous region, policies for development of west China, and policies concerning opening-up coastal areas and border areas.
Source of funding / investment:	The GEF/ABS project will be chaired by the Guangxi Provincial Department of Environmental Protection, with involvement of other sectors, such as agriculture, forestry, the TCM bureau, FDA, quality inspection and quarantine. A multi-sectoral coordination mechanism will be established, to guide the implementation of the project. Furthermore, the Provincial Department of Environmental Protection has committed to arrange co-financing as required. The source of co-financing is from fiscal budget. In the meanwhile the government will make efforts to attract investment from private sector.
Markets	At present, mainly limited to domestic market
Poverty / poverty alleviation	The municipal government of Fangchenggang has also decided to establish research center for golden camellia, to promote R&D. This will increase the agricultural demand for farmers to produce camellias, providing a potential increase in income.
Environmental impacts	The Golden Camellia Nature Reserve has served as the source of germplasm for a number of companies that now cultivate and process the camellias for the growing local market, and have contributed to the Reserve. The Reserve has plans to to strengthen management of the golden camellia resource, by clarifying the borders of the reserve and banning land clearing, hill clearing, deforestation and grazing.

PILOT #5 FACT SHEET

1. **Species name:** Xiangxi black pig (local variety)

2. **Location of pilot:** Hunan Province

3. **Focus:** GR and ATK

4. **Historical and conventional use(s), and ATK aspects:**

For more than two thousand, black pig meat has been made into bacon and other kinds of salted and cured products. Those products represent diversified traditional culture of local area, and it has been a widely consumed food among ethno and local communities. It has been a fine meal used for serving guests or used for hosting festivals and funeral services, or used as an item of tribute for worshiping god. More recently, it has been protected under a national geological indication.

Due to its fine quality and stress resistance, the Xiangxi black pig is potentially important as breeding material.

5. **Development:**

1) Novel development and utilization

In recent years, local research institutions did some studies on the meat of one variant of the Xiangxi black pig, known as the Pushi black pig. The results of that study indicate that this pig's products are rich in protein (22.9g), Vitamin A (135 micrograms of retinol equivalent), Zinc (15.2mg), Phosphorus and other nutritional components. Among proteins it is particularly rich in Lysine (2923 mg). The development of black pig is reportedly on the rise.

2) Development companies and major products

- **Beijing Yijia Ziyuan Corporation:** 1) establishment of Xiangxi pig conservation farm (interbreeding the various localize sub-species) 2) development of a Xiangxi black pig breeding system; and 3) expanding marketing-oriented production.
- **Xiangxi Luxi Xinnv Food Co., LTD, Xiangxi Prefecture:** In cooperation with the livestock and animal husbandry bureau, established a very large scale pig breeding farm using and combining gene-stock from the entire area. It has also formed a "preliminary industrial chain for black pig".

3) Identification of chemical compounds

Analysis of the characteristics of one local sub-species, the "Iron bone" pig of Pu town, yielded the following results:

- overall lean/fat ratio: lean up to 48.23%, up to 7.06% intramuscular fat (common rate 2.98%, same as below),
- the total amino acid 79.3 % (54.95%),
- aspartate 21.48% (5.76%),
- glutamate 56.51% (10.06%),
- glycine 11.99% (2.4%),
- essential amino acids 41.62%,
- flavor amino acids 21.63%, linoleic acid 61.9% (22.76%),
- oleic acid 53.52% (35.58%), stearic acid 11.9% (15.73%),
- palmitic acid 24.66% (25.93%),
- unsaturated fatty acids 60.35%.

In addition, a bone strength of 3.26 (1.79) is a unique trait of the species.

4) *Description of R&D investments related to the genetic resources in question (2016-2020):*

Both Beijing Yijia Ziyuan Corporation and Xiangxi Luxi Xinnv Food Co., LTD, Xiangxi Prefecture have planned to invest the development of Xiangxi black pig for new products. The R&D investments related to the genetic resources in question during 2016-2020 is estimated at approximately two million US dollars..

6. **Use type(s):**

1) Food and healthcare products (Xiangxi cured meat);

2) Genetic resource for pig breeding;

7. **ABS arrangements:** No (formal or informal ABS – PIC, MAT, ABS Contract, Benefit-sharing, etc.) The following describe current use experience:

(1) ***The process of access:*** the germplasm resource of black pig was extensively sourced from areas that cultivate such species. Over the course of purchasing, the company would just pay at a price higher than the market, however, which was just an immediate transaction, which lack of long-term ABS agreement.

(2) ***The process of production:*** the main local production is individual, for sale or use. Larger commercial development follows standard animal husbandry agricultural patterns (“Company + company's own base” or “Company + farmer household” or “Company + cooperative + farmer household”). The company will purchase all the black pigs at the price higher than market, so as to enable farmers avoid market risks. The company will then conduct unified processing and marketing, to improve the added value of those products, to ensure both the interests of companies and farmers.

8. **Stakeholder identification (incl. attitudes)**

Stakeholder	Description
Providers	Local minority communities
Middlemen	Research institutions, high education units
Users	Beijing Ziyuanyijia Corporation, and Luxixinnv Food, Co., LTD
Local government	Xiangxi Prefecture Husbandry Bureau
Local communities	Specific community to be identified

9. Socio-economic and environmental elements

Stakeholder	Description
Policy environment (subsidies, etc)	The relevant government structures, at both prefecture and county level are supportive of development and utilization of Xiangxi Black Pig. In this connection, they have established an “ABS steering group” for the Black Pigs, chaired by deputy governor of the prefecture, with primary roles for the county governor and relevant county governors and the deputy county governors responsible for agriculture and environmental protection. Other officials and experts also are involved, including leaders from the Environmental Protection Bureau, the Office for Poverty Alleviation and Development, and the Bureau for Livestock and Animal Husbandry. The prefectural bureau for livestock and animal husbandry provides regular technical guidance to the Black Pigs group, on a variety of matters including crossbreeding and fattening experiments.
Source of funding / investment: (e.g. Government, private investors, etc.)	Government at prefecture and county level provide with co-financing to varying degrees.
Markets	Mainly focused on domestic market. Beijing Ziyuan Yijia Corporation is planning to start pig related production from 2015, to realize the goal of 1 million full grown pigs ready for marketing till 2020, and to realize the annual profit of 10 billion Yuan. Xiangxi Luxi Xinnv Food Company started producing cured meat products since 2012. It has passed QS authentication. Through E-commerce, the sales in 2014 were 10 million Yuan. It is planning to increase production capacity to 1000 ton till 2020 and 0.1 billion Yuan of profit.
Poverty / poverty alleviation	Targets being promoted would suggest that one couple could raise 300 black pigs annually, thereby gaining 60,000 Yuan in additional annual income. Some 5000 farmer households will be motivated to take part in the business of pig cultivation, so as to get 10,000 of people out of poverty in west Hunan. Xiangxi Luxi Xinnv Food Company is planning to invest 16.8 million Yuan, to get 2500 households out of poverty till 2017 and to increase each household’s income by 6000 Yuan.

PILOT #6 FACT SHEET

1. **Species name:** Xiangxi Tea
2. **Location of pilot:** Xiangxi Prefecture, Hunan Province
3. **Focus:** GR and ATK

4. **Historical and conventional use(s), and ATK aspects:**

Baojing Golden tea is a native species in Baojing, with unique genetic traits. The amino acid of early spring tea is as much as 7.4%. Ever since Jiaqing period of Qing dynasty (1636 - 1912), Golden tea was an article of tribute. It was so named because of its price, which is one kilo of gold for one kilo of tea. Guzhang tippy tea is a geological indication product; it is one of “ten tippy teas” in China, which has a long-standing reputation.

The tea traditions of the Miao people is not only a lifestyle, but also reflects their philosophy of life in, for example, as basic necessities of life, weddings and funerals, festivals and celebrations, etc. Tea ritual is customary practice in local area, when a new baby is born, neighbors will bring tea bud or seedling as a token of congratulation. If it's a baby boy, neighbors will bring a seedling with one bud and one leaf, if it's a baby girl, they will bring a seedling with one bud and two leaves, which stands for “one lady is after by many gentlemen”.

5. **Development:**

- 1) *Novel development and utilization*

The modern Baojing golden tea is a recently developed product. The variety was artificially developed from the original old tea tree via seed selection. Through several years of seed selection experimentation by the Hunan Tea Institute, the new varieties were selected – Golden tea No. 1 and No. 2. Baojing golden Tea Company has developed a series of tea products including white tea and dark green tea.

Guzhang tippy tea has a long-standing reputation, and it is one of “ten tippy teas” in China. In the past, Guzhang tippy tea was referring to green tea, and also most of them are spring tea (harvest in spring), while, currently products developed by Yingmeizi Tea Company are black tea.

- 2) *Development companies and major products*

- **Hunan Baojing Golden Tea LTD.** Golden tea products, as above. This company is a multi-stakeholder private enterprise, in which, the county tea office has 16.11% of the share (government), and provincial tea institution has another 9.38% of the share (public institution).
- **Hunan Yingmeizi Tea Science and Technology LTD**’. Guzhang tippy tea. This is a private company, founded in 2010.

- 3) *Identification of chemical compounds*

Recent comparative testing has shown that Baojing golden tea is of higher quality comparing to raw materials of same tenderness, particularly its ratio of FAA (Free Amino Acids) is as much as twice higher than other varieties.

Similarly, Guzhang tippy black tea is rich in the antioxidant Theaflavin, and contains a large amount of pectin.

4) *Description of R&D investments related to the genetic resources in question (2016-2020):*

Hunan Baojing Golden Tea LTD have planned to invest the development of Baojing Golden Tea for new products, and Hunan Yingmeizi Tea Science and Technology LTD has also planned to invest the development of Guzhang tippy tea for new products. The R& D investments related to the genetic resources in question during 2016-2020 is estimated to be over \$500,000 (USD).

6. **Use type(s)** (*Choose from medicine, cosmetics, food and beverage or others and provide relevant details*):

- 1) Healthy food and beverage

7. **ABS arrangements** : Limited (formal or informal ABS – PIC, MAT, ABS Contract, Benefit-sharing, etc.) The following describes current use experience:

(1) **The process of access:**

- Baojing golden tea: initially, the provincial tea institution accessed genetic resource from an ancient tree from Huangjin village, and stabilized two varieties through conventional selection processes (Golden tea No. 1 and No. 2). There is a tea research institute in which the development companies hold a 9% of share, which signed a cooperation agreement with local government when the resource of ancient tea tree was accessed. Some elements of benefit sharing were included.
- Guzhang tippy black tea: the companies acquired germplasm from an old tea tree in local community, and then transplanted several tea trees to areas that company headquarters for ex-situ conservation.

(2) **The process of production:**

The tea production follows one of the standard agricultural patterns (“company + cooperative + farmer household”), in which, tea company signs production as well as purchase contract with famer households or specialized cooperatives to ensure sufficient supply of raw materials of tea.

“Yingmeizi Guzhang Tippy Black Tea Co., LTD” has its own plantation base. The company signs lease contract with farmers to use their tea gardens.

Both of Hunan Baojing Golden Tea Ltd. Company and Yingmeizi Guzhang Tippy Black Tea Company all have plantation bases of their own. The former one leases land from famers to develop its own tea plantation, while the latter leases tea garden from farmers directly.

8. **Stakeholder identification (incl. attitudes)**

Stakeholder	Description
Providers	Local ethnic minority communities
Middlemen	Research institutions and high education units, e.g. tea institution
Users	Production enterprises and commercial enterprises
Local government	Prefectural government of Xiangxi, government of Baojing county, government of Guzhang county, and government of other related townships and villages
Local communities	Huangjin village in Baojing county, etc.

9. **Socio-economic and environmental elements**

Element	Description
Policy environment (subsidies, etc.)	The relevant government structures, at both prefecture and county level are supportive of development and utilization of Baojing Golden Tea and Guzhang Tippy Tea. In connection with these products, they have established an “ABS steering group” for the two tea products, chaired by deputy governor of the prefecture, with primary roles for the county governor and relevant county governors and the deputy county governors responsible for agriculture and environmental protection. Other officials and experts also are involved, including leaders from the Environmental Protection Bureau, and the Office for Poverty Alleviation and Development. The prefectural agricultural bureau and prefectural tea office provide regular technical guidance to the Tea group regarding matters such as breeding experiments and the production of high quality seedlings.
Source of funding / investment:	Government at prefecture and county level provided more or less relevant co-financing.
Markets	Mainly domestic market
Poverty / poverty alleviation	The pilot will be undertaken in a state-level poverty county. Improvement of the development of tea industry could of help in poverty alleviation.

Annex 2. ABS Institutional Capacity Scorecards – Baseline Results

A. NATIONAL ABS INSTITUTIONAL CAPACITY SCORECARD –MEP

Table 16: National ABS Institutional Capacity Scorecard - MEP

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
1. Capacity to conceptualize and formulate policies, laws, strategies and programmes	The Access and Benefit-Sharing (ABS) agenda is being effectively championed / driven forward	0 -- There is essentially no ABS agenda; 1 -- There are some persons or institutions actively pursuing an ABS agenda but they have little effect or influence; 2 -- There are a number of ABS champions that drive the ABS agenda, but more is needed; 3 -- There are an adequate number of able "champions" and "leaders" effectively driving forwards an ABS agenda	2	Institutional champions include FECO, NIES/MEP and Chinese Research Academy of Environmental Sciences and many others
	There is a legally designated institution(s) responsible for ABS with the capacity to develop a national ABS framework (i.e., laws, policies and/or regulations)	0 -- There is no institution(s) responsible for ABS; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	2	MEP is China's lead agency on the CBD. The State Council has announced that MEP will be the leading agency on protection and management of genetic resources and biodiversity. In 2004, the State Council proposed to enhance ABS regulations; in 2010 CNBSAP, as Priority action 21, request ABS legislation; and identified MEP to develop those regulations. In MEP, an administrative division specially for ABS and associated affairs was set up under the Biodiversity Conservation Office. In FECO/MEP, there is a team specially for ABS Protocol and associated affairs. The division is financed but limited personnel.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
2. Capacity to implement policies, legislation, strategies and programmes	There is a legally designated ABS institution(s) responsible for ABS that can facilitate the implementation of the national ABS framework.	0 – The institution(s) does not have the financial resources, personnel, and planning/management skills; 1 – The institution(s) has financial resources but has limited personnel and planning/management skills; 2 – The institution(s) has financial resources and personnel but limited planning/management skills; 3 – The institution(s) has sufficient financial resources, personnel and planning/management skills.	2	As above. Both MEP and FECO/MEP have designed division or team for ABS issue, and they have financial resources from central government and staff, These division or team have facilitated development and implementation of the ABS framework. But they are short of planning/management skills.
	The ABS institution (s) is effectively led	0 – The ABS institution(s) has a total lack of leadership; 1 – The ABS institution(s) has weak leadership and provides little guidance; 2 – The ABS institution(s) has a reasonably strong leadership but there is still need for improvement; 3 – The ABS institution(s) is effectively led	2	The ABS institutions are under the leadership of MEP, They are now in division or team level with weak coordinating function, it has room for their improvement to be effective led.
	Human resources for ABS management are well qualified and motivated	0 -- Human resources are poorly qualified and unmotivated; 1 -- Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated; 2 – Human Resources in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified; 3 -- Human resources are well qualified and motivated.	1	Human resources for ABS management are relatively qualified, but the number is not enough and only concentrated in a few institutions. Also, they are general unmotivated.
	The ABS institution(s) is audited and publicly accountable	0 – The ABS institution(s) is not being held accountable and not audited; 1 – The ABS institution(s) is occasionally audited without being held publicly accountable; 2 – The ABS institution(s) is regularly audited and there is a fair degree of public accountability but	2	All established central government agencies and ministries in China are regularly audited, but the system is not fully transparent.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		the system is not fully transparent; 3 – The ABS institution(s) is highly fully audited, and publicly accountable.		
	Enforcement of ABS regulations	0 -- No enforcement of regulations is taking place; 1 -- Some enforcement of regulations is taking place but it is largely ineffective; 2 -- ABS regulations are regularly enforced but are not fully effective; 3 -- ABS regulations are highly effectively enforced.	1	Some pieces of ABS-related legislation exist. This rating applies to their enforcement.
	Individuals are able to advance and develop professionally	0 -- No career tracks are developed and no training opportunities are provided; 1 -- Career tracks are weak and training possibilities are few and not managed transparently; 2 -- Clear career tracks developed and training available; HR management however has inadequate performance measurement system; 3 -- Individuals are able to advance and develop professionally.	1	MEP has organized several training workshop on ABS for officials of provincial EPB, but limited time and limited people.
	Individuals are appropriately skilled for their jobs	0 -- Skills of individuals do not match job requirements; 1 -- Individuals have some or poor skills for their jobs; 2 -- Individuals are reasonably skilled but could further improve for optimum match with job requirement; 3 -- Individuals are appropriately skilled for their jobs	1	A few individuals are reasonably skilled but many others have poor skill for their jobs.
	Individuals are highly motivated	0 -- No motivation at all; 1 -- Motivation uneven, some are but most are not; 2 -- Many individuals are motivated but not all; 3 -- Individuals are highly motivated	1	Complexity of ABS interferes with motivation. But only some individuals are motivated. Capacity development may improve this

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	There are appropriate mechanisms of training, mentoring, and learning in place to maintain a continuous flow of new staff	0 -- No mechanisms exist; 1 -- Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed; 2 -- Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required; 3 -- There are mechanisms for developing adequate numbers of the full range of highly skilled ABS professionals	1	At the higher central government level people are clear and some mechanism exist, but at lower and decentralized levels additional mechanisms are needed.
3. Capacity to engage and build consensus among all stakeholders	ABS has the political commitment	0 -- There is no political will at all, or worse, the prevailing political will runs counter to the interests of ABS; 1 -- Some political will exists, but is not strong enough to make a difference; 2 -- Reasonable political will exists, but is not always strong enough to fully support ABS; 3 -- There are very high levels of political will to support ABS.	2	MEP and other relevant ministries have political will, but it is hard to join together to complete national ABS regulation and other operating mechanism.
	Degree of public support on ABS issues	0 -- The public has little interest in ABS and there is no significant lobby for ABS; 1 -- There is limited support for ABS; 2 -- There is general public support for ABS and there are various lobby groups strongly pushing them; 3 -- There is tremendous public support in the country for ABS.	1	The issue has not been discussed in public media widely.
	The ABS institution(s) is mission oriented	0 -- Institutional mission is not defined; 1 -- Institutional mission is poorly defined and generally not known and internalized at all levels; 2 -- Institutional mission well defined and internalized but not fully embraced; 3 -- Institutional mission is fully internalized and embraced.	1	As national ABS regulation is underway for formulation, the institutional mission is not clearly defined.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	The ABS institution(s) can facilitate the partnerships needed to achieve its objectives	0 – The ABS institution(s) operate in isolation; 1 – The ABS institution(s) has facilitated some partnerships but significant gaps and existing partnerships achieve little; 2 – The ABS institution(s) has facilitated many partnerships with a wide range of national and local agencies, private sector and NGOs but there are some gaps and partnerships, are not always effective and do not always enable efficient achievement of ABS objectives; 3 – The ABS institution(s) has facilitated effective partnerships with national and local agencies, private sector and NGOs to enable achievement of ABS objectives in an efficient and effective manner.	1	Some coordination is being undertaken by the ABS institutional facilitation, but needs time and opportunity to achieve and enhance this coordination.
4. Capacity to mobilize information and knowledge	The ABS institution(s) has the information it needs to enforce the national legal/policy ABS framework and to facilitate ABS deals	0 -- Information is virtually lacking; 1 – The ABS institution(s) has access to some information, but is of poor quality, is of limited usefulness, or is very difficult to access; 2 – The ABS institution(s) has access to a lot of information which is mostly of good quality, but there remain some gaps in quality, coverage and availability; 3 – The ABS institution(s) has the information it needs to enforce the national legal/policy framework and facilitate ABS deals.	2	Information is scattered. There is a need to organize and coordinate it.
	Individuals from the ABS institution(s) work effectively together as a team	0 -- Individuals work in isolation and don't interact; 1 -- Individuals interact in limited way and sometimes in teams but this is rarely effective and functional; 2 -- Individuals interact regularly and form teams, but this is not always fully effective or functional; 3 -- Individuals interact effectively and form functional teams.	1	Individuals working in current ABS institutions are working as a team duo to a few people only. But interact is always a problem in many institutions for a large team.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
5. Capacity to monitor, evaluate, report and learn	There is a legally designated institution(s) responsible for ABS and able to update the ABS national framework	0 – The institution(s) does not have the financial resources, personnel, and expertise; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	1	The current institutions are will financed but limited personnel and expertise. As ABS regulations have not been developed as yet, monitoring and updating are not yet matters of concern.
	ABS policy or law is continually reviewed and updated	0 -- There is no policy or law or it is old and not reviewed regularly; 1 -- Policy or law is only reviewed at irregular intervals; 2 – Policy or law is reviewed regularly but not annually; 3 -- Policy or law is reviewed annually.	1	Only a few of ABS policies and laws exist, and they are not reviewed regularly.
	Society monitors ABS projects	0 -- There is no dialogue at all; 1 -- There is some dialogue going on, but not in the wider public and restricted to specialized circles; 2 -- There is a reasonably open public dialogue going on but certain issues remain taboo; 3 -- There is an open and transparent public dialogue about the state of the ABS projects.	1	With no ABS regulation, this response is based on the need for future development.
	Institutions are highly adaptive, responding effectively and immediately to change promoted by implementation of the national ABS framework (i.e., laws, policies and/or regulations).	0 – There is no implementation of the national ABS framework at the moment; 1 -- Institutions do change but only very slowly; 2 -- Institutions tend to adapt in response to change but not always very effectively or with some delay; 3 -- Institutions are highly adaptive, responding effectively and immediately to change.	1	As ABS framework is underway for development, the institutions need to change for adaption for implementation of ABS framework.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	The ABS institution(s) has effective internal mechanisms for monitoring, evaluation, reporting and learning on ABS projects	0 -- There are no mechanisms for monitoring, evaluation, reporting or learning; 1 -- There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak; 2 -- Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be; 3 -- Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning.	1	A series of activities related to ABS have been undertaken, although more work on this issue is needed.
	Individuals from ABS institutions are adaptive and continue to learn	0 -- There is no measurement of performance or adaptive feedback; 1 -- Performance is irregularly and poorly measured and there is little use of feedback; 2 -- There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be; 3 -- Performance is effectively measured and adaptive feedback utilized	1	.There are short of mechanism for measurement of individuals' performance in most institutions in China,

TOTAL SCORE: 30 out of a possible 69 = 43%

B. SUB-NATIONAL ABS INSTITUTIONAL CAPACITY SCORECARD – GUANGXI AUTONOMOUS REGION-BASELINE

Table 17: Sub-National ABS Institutional Capacity Scorecard – Guangxi Autonomous Region – Baseline

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
1. Capacity to conceptualize and formulate policies, laws, strategies and programmes	The Access and Benefit-Sharing (ABS) agenda is being effectively championed / driven forward	0 -- There is essentially no ABS agenda; 1 -- There are some persons or institutions actively pursuing an ABS agenda but they have little effect or influence; 2 -- There are a number of ABS champions that drive the ABS agenda, but more is needed; 3 -- There are an adequate number of able "champions" and "leaders" effectively driving forwards an ABS agenda	0	ABS is a new concept for local government.
	There is a legally designated institution(s) responsible for ABS with the capacity to develop a provincial ABS framework (i.e., laws, policies and/or regulations)	0 -- There is no institution(s) responsible for ABS; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	1	Financial resource is not a problem in provincial government.
2. Capacity to implement policies, legislation, strategies and programmes	There is a legally designated ABS institution(s) responsible for ABS that can facilitate the implementation of the national ABS framework.	0 – The institution(s) does not have the financial resources, personnel, and planning/management skills; 1 – The institution(s) has financial resources but has limited personnel and planning/management skills; 2 – The institution(s) has financial resources and personnel but limited planning/management skills; 3 – The institution(s) has sufficient financial resources, personnel and planning/management skills.	1	As above

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	The ABS institution (s) is effectively led	0 – The ABS institution(s) has a total lack of leadership; 1 – The ABS institution(s) has weak leadership and provides little guidance; 2 – The ABS institution(s) has a reasonably strong leadership but there is still need for improvement; 3 – The ABS institution(s) is effectively led	0	Usually ABS institutions in local level are always short of leadership.
	Human resources for ABS management are well qualified and motivated	0 -- Human resources are poorly qualified and unmotivated; 1 -- Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated; 2 – Human Resources in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified; 3 -- Human resources are well qualified and motivated.	1	Normally, human resources are insufficiently qualified at local level compared with central government.
	The ABS institution(s) is audited and publicly accountable	0 – The ABS institution(s) is not being held accountable and not audited; 1 – The ABS institution(s) is occasionally audited without being held publicly accountable; 2 – The ABS institution(s) is regularly audited and there is a fair degree of public accountability but the system is not fully transparent; 3 – The ABS institution(s) is highly fully audited, and publicly accountable.	1	Audit system is relatively weak in local governmental level.
	Enforcement of ABS regulations	0 -- No enforcement of regulations is taking place; 1 -- Some enforcement of regulations is taking place but it is largely ineffective; 2 -- ABS regulations are regularly enforced but are not fully effective; 3 -- ABS regulations are highly effectively enforced.	0	ABS is quite new for local government

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	Individuals are able to advance and develop professionally	0 -- No career tracks are developed and no training opportunities are provided; 1 -- Career tracks are weak and training possibilities are few and not managed transparently; 2 -- Clear career tracks developed and training available; HR management however has inadequate performance measurement system; 3 -- Individuals are able to advance and develop professionally.	1	Occasionally participated in the training workshop organized by MEP.
	Individuals are appropriately skilled for their jobs	0 -- Skills of individuals do not match job requirements; 1 -- Individuals have some or poor skills for their jobs; 2 -- Individuals are reasonably skilled but could further improve for optimum match with job requirement; 3 -- Individuals are appropriately skilled for their jobs	1	Individuals in local government are well educated, but currently they have no any experience and knowledge on ABS. However, they can get improvement if training system is good.
	Individuals are highly motivated	0 -- No motivation at all; 1 -- Motivation uneven, some are but most are not; 2 -- Many individuals are motivated but not all; 3 -- Individuals are highly motivated	0	The individuals' motivation will be improved after GEF/ABS project has been conducted.
	There are appropriate mechanisms of training, mentoring, and learning in place to maintain a continuous flow of new staff	0 -- No mechanisms exist; 1 -- Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed; 2 -- Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required; 3 -- There are mechanisms for developing adequate numbers of the full range of highly skilled ABS professionals	0	Currently there is no mechanisms for training and monitoring, but the situation will be improved when GEF/ABS project is started.
3. Capacity to engage and	ABS has the political commitment	0 -- There is no political will at all, or worse, the prevailing political will runs counter to the	1	Local government has interest in ABS as it is beneficial to local

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
build consensus among all stakeholders		interests of ABS; 1 -- Some political will exists, but is not strong enough to make a difference; 2 -- Reasonable political will exists, but is not always strong enough to fully support ABS; 3 -- There are very high levels of political will to support ABS.		communities, so they normally have political will on ABS.
	Degree of public support on ABS issues	0 -- The public has little interest in ABS and there is no significant lobby for ABS; 1 -- There is limited support for ABS; 2 -- There is general public support for ABS and there are various lobby groups strongly pushing them; 3 -- There is tremendous public support in the country for ABS.	0	No publicity on ABS in local level.
	The ABS institution(s) is mission oriented	0 -- Institutional mission is not defined; 1 -- Institutional mission is poorly defined and generally not known and internalized at all levels; 2 -- Institutional mission well defined and internalized but not fully embraced; 3 -- Institutional mission is fully internalized and embraced.	0	Usually local institutional missions are only leaned or copied from the central institutions.
	The ABS institution(s) can facilitate the partnerships needed to achieve its objectives	0 – The ABS institution(s) operate in isolation; 1 – The ABS institution(s) has facilitated some partnerships but significant gaps and existing partnerships achieve little; 2 – The ABS institution(s) has facilitated many partnerships with a wide range of national and local agencies, private sector and NGOs but there are some gaps and partnerships, are not always effective and do not always enable efficient achievement of ABS objectives; 3 – The ABS institution(s) has facilitated effective partnerships with national and local agencies, private sector and NGOs to enable achievement of ABS objectives in an efficient and effective	0	Currently the local ABS institutions are underway for establishment, they have potential to facilitate partnership with other sectors.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		manner.		
4. Capacity to mobilize information and knowledge	The ABS institution(s) has the information it needs to enforce the national legal/policy ABS framework and to facilitate ABS deals	0 -- Information is virtually lacking; 1 – The ABS institution(s) has access to some information, but is of poor quality, is of limited usefulness, or is very difficult to access; 2 – The ABS institution(s) has access to a lot of information which is mostly of good quality, but there remain some gaps in quality, coverage and availability; 3 – The ABS institution(s) has the information it needs to enforce the national legal/policy framework and facilitate ABS deals.	1	The local institutions have accessed the limited information from the central government (MEP) by participating in some training workshop.
	Individuals from the ABS institution(s) work effectively together as a team	0 -- Individuals work in isolation and don't interact; 1 -- Individuals interact in limited way and sometimes in teams but this is rarely effective and functional; 2 -- Individuals interact regularly and form teams, but this is not always fully effective or functional; 3 -- Individuals interact effectively and form functional teams.	1	Individuals can interact well because they are very few people.
5. Capacity to monitor, evaluate, report and learn	There is a legally designated institution(s) responsible for ABS and able to update the ABS national framework	0 – The institution(s) does not have the financial resources, personnel, and expertise; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	1	Financial resources are not a problem for provincial government, but personnel and expertise are really problem in local level.
	ABS policy or law is continually reviewed and updated	0 -- There is no policy or law or it is old and not reviewed regularly; 1 -- Policy or law is only reviewed at irregular intervals; 2 – Policy or law is reviewed regularly but not annually; 3 -- Policy or law is reviewed annually.	0	As ABS is a new issue for all local government, there is no ABS policy and law at local government level.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	Society monitors ABS projects	0 -- There is no dialogue at all; 1 -- There is some dialogue going on, but not in the wider public and restricted to specialized circles; 2 -- There is a reasonably open public dialogue going on but certain issues remain taboo; 3 -- There is an open and transparent public dialogue about the state of the ABS projects.	0	ABS is also a new topic for society.
	Institutions are highly adaptive, responding effectively and immediately to change promoted by implementation of the national ABS framework (i.e., laws, policies and/or regulations).	0 – There is no implementation of the national ABS framework at the moment; 1 -- Institutions do change but only very slowly; 2 -- Institutions tend to adapt in response to change but not always very effectively or with some delay; 3 -- Institutions are highly adaptive, responding effectively and immediately to change.	0	National ABS framework is underway for formulation. Implementation will follow.
	The ABS institution(s) has effective internal mechanisms for monitoring, evaluation, reporting and learning on ABS projects	0 -- There are no mechanisms for monitoring, evaluation, reporting or learning; 1 -- There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak; 2 -- Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be; 3 -- Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning.	1	There are some mechanisms existed for other issues and they can also used for ABS issue.
	Individuals from ABS institutions are adaptive and continue to learn	0 -- There is no measurement of performance or adaptive feedback; 1 -- Performance is irregularly and poorly measured and there is little use of feedback; 2 -- There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be; 3 -- Performance is effectively measured and adaptive feedback utilized	0	Normally there is short of the performance measurement in local institutions, and it can be established by conducting GEF/ABS project.

TOTAL SCORE: 11 out of a possible 69 = 16%

C. SUB-NATIONAL ABS INSTITUTIONAL CAPACITY SCORECARD – HUNAN PROVINCE: BASELINE

Table 18: Sub-National ABS Institutional Capacity Scorecard – Hunan Province: Baseline

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
1. Capacity to conceptualize and formulate policies, laws, strategies and programmes	The Access and Benefit-Sharing (ABS) agenda is being effectively championed / driven forward	0 -- There is essentially no ABS agenda; 1 -- There are some persons or institutions actively pursuing an ABS agenda but they have little effect or influence; 2 -- There are a number of ABS champions that drive the ABS agenda, but more is needed; 3 -- There are an adequate number of able "champions" and "leaders" effectively driving forwards an ABS agenda	0	ABS is a new concept for local government.
	There is a legally designated institution(s) responsible for ABS with the capacity to develop a provincial ABS framework (i.e., laws, policies and/or regulations)	0 -- There is no institution(s) responsible for ABS; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	1	Financial resource is not a problem in provincial government.
2. Capacity to implement policies, legislation, strategies and programmes	There is a legally designated ABS institution(s) responsible for ABS that can facilitate the implementation of the national ABS framework.	0 – The institution(s) does not have the financial resources, personnel, and planning/management skills; 1 – The institution(s) has financial resources but has limited personnel and planning/management skills; 2 – The institution(s) has financial resources and personnel but limited planning/management skills; 3 – The institution(s) has sufficient financial resources, personnel and planning/management skills.	1	As above

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	The ABS institution (s) is effectively led	0 – The ABS institution(s) has a total lack of leadership; 1 – The ABS institution(s) has weak leadership and provides little guidance; 2 – The ABS institution(s) has a reasonably strong leadership but there is still need for improvement; 3 – The ABS institution(s) is effectively led	0	Usually ABS institutions in local level are always short of leadership.
	Human resources for ABS management are well qualified and motivated	0 -- Human resources are poorly qualified and unmotivated; 1 -- Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated; 2 – Human Resources in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified; 3 -- Human resources are well qualified and motivated.	1	Normally, human resources are insufficiently qualified at local level compared with central government.
	The ABS institution(s) is audited and publicly accountable	0 – The ABS institution(s) is not being held accountable and not audited; 1 – The ABS institution(s) is occasionally audited without being held publicly accountable; 2 – The ABS institution(s) is regularly audited and there is a fair degree of public accountability but the system is not fully transparent; 3 – The ABS institution(s) is highly fully audited, and publicly accountable.	1	Audit system is relatively weak in local governmental level.
	Enforcement of ABS regulations	0 -- No enforcement of regulations is taking place; 1 -- Some enforcement of regulations is taking place but it is largely ineffective; 2 -- ABS regulations are regularly enforced but are not fully effective; 3 -- ABS regulations are highly effectively enforced.	0	ABS is quite new for local government

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
	Individuals are able to advance and develop professionally	0 -- No career tracks are developed and no training opportunities are provided; 1 -- Career tracks are weak and training possibilities are few and not managed transparently; 2 -- Clear career tracks developed and training available; HR management however has inadequate performance measurement system; 3 -- Individuals are able to advance and develop professionally.	1	Occasionally participated in the training workshop organized by MEP.
	Individuals are appropriately skilled for their jobs	0 -- Skills of individuals do not match job requirements; 1 -- Individuals have some or poor skills for their jobs; 2 -- Individuals are reasonably skilled but could further improve for optimum match with job requirement; 3 -- Individuals are appropriately skilled for their jobs	1	Individuals in local government are well educated, but currently they have no any experience and knowledge on ABS. However, they can get improvement if training system is good.
	Individuals are highly motivated	0 -- No motivation at all; 1 -- Motivation uneven, some are but most are not; 2 -- Many individuals are motivated but not all; 3 -- Individuals are highly motivated	0	The individuals' motivation will be improved after GEF/ABS project has been conducted.
	There are appropriate mechanisms of training, mentoring, and learning in place to maintain a continuous flow of new staff	0 -- No mechanisms exist; 1 -- Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed; 2 -- Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required; 3 -- There are mechanisms for developing adequate numbers of the full range of highly skilled ABS professionals	0	Currently there is no mechanisms for training and monitoring, but the situation will be improved when GEF/ABS project is started.
3. Capacity to engage and	ABS has the political commitment	0 -- There is no political will at all, or worse, the prevailing political will runs counter to the	1	Local government has interest in ABS as it is beneficial to local

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
build consensus among all stakeholders		interests of ABS; 1 -- Some political will exists, but is not strong enough to make a difference; 2 -- Reasonable political will exists, but is not always strong enough to fully support ABS; 3 -- There are very high levels of political will to support ABS.		communities, so they normally have political will on ABS.
	Degree of public support on ABS issues	0 -- The public has little interest in ABS and there is no significant lobby for ABS; 1 -- There is limited support for ABS; 2 -- There is general public support for ABS and there are various lobby groups strongly pushing them; 3 -- There is tremendous public support in the country for ABS.	0	No publicity on ABS in local level.
	The ABS institution(s) is mission oriented	0 -- Institutional mission is not defined; 1 -- Institutional mission is poorly defined and generally not known and internalized at all levels; 2 -- Institutional mission well defined and internalized but not fully embraced; 3 -- Institutional mission is fully internalized and embraced.	0	Usually local institutional missions are only leaned or copied from the central institutions.
	The ABS institution(s) can facilitate the partnerships needed to achieve its objectives	0 – The ABS institution(s) operate in isolation; 1 – The ABS institution(s) has facilitated some partnerships but significant gaps and existing partnerships achieve little; 2 – The ABS institution(s) has facilitated many partnerships with a wide range of national and local agencies, private sector and NGOs but there are some gaps and partnerships, are not always effective and do not always enable efficient achievement of ABS objectives; 3 – The ABS institution(s) has facilitated effective partnerships with national and local agencies, private sector and NGOs to enable achievement of ABS objectives in an efficient and effective	0	Currently the local ABS institutions are underway for establishment, they have potential to facilitate partnership with other sectors.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		manner.		
4. Capacity to mobilize information and knowledge	The ABS institution(s) has the information it needs to enforce the national legal/policy ABS framework and to facilitate ABS deals	0 -- Information is virtually lacking; 1 – The ABS institution(s) has access to some information, but is of poor quality, is of limited usefulness, or is very difficult to access; 2 – The ABS institution(s) has access to a lot of information which is mostly of good quality, but there remain some gaps in quality, coverage and availability; 3 – The ABS institution(s) has the information it needs to enforce the national legal/policy framework and facilitate ABS deals.	1	The local institutions have accessed the limited information from the central government (MEP) by participating in some training workshop.
	Individuals from the ABS institution(s) work effectively together as a team	0 -- Individuals work in isolation and don't interact; 1 -- Individuals interact in limited way and sometimes in teams but this is rarely effective and functional; 2 -- Individuals interact regularly and form teams, but this is not always fully effective or functional; 3 -- Individuals interact effectively and form functional teams.	1	Individuals can interact well because they are very few people.
5. Capacity to monitor, evaluate, report and learn	There is a legally designated institution(s) responsible for ABS and able to update the ABS national framework	0 – The institution(s) does not have the financial resources, personnel, and expertise; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial	1	Financial resources are not a problem for provincial government, but personnel and expertise are really problem in local level.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		resources, personnel and expertise.		
	ABS policy or law is continually reviewed and updated	0 -- There is no policy or law or it is old and not reviewed regularly; 1 -- Policy or law is only reviewed at irregular intervals; 2 -- Policy or law is reviewed regularly but not annually; 3 -- Policy or law is reviewed annually.	0	As ABS is a new issue for all local government, there is no ABS policy and law at local government level.
	Society monitors ABS projects	0 -- There is no dialogue at all; 1 -- There is some dialogue going on, but not in the wider public and restricted to specialized circles; 2 -- There is a reasonably open public dialogue going on but certain issues remain taboo; 3 -- There is an open and transparent public dialogue about the state of the ABS projects.	0	ABS is also a new topic for society.
	Institutions are highly adaptive, responding effectively and immediately to change promoted by implementation of the national ABS framework (i.e., laws, policies and/or regulations).	0 -- There is no implementation of the national ABS framework at the moment; 1 -- Institutions do change but only very slowly; 2 -- Institutions tend to adapt in response to change but not always very effectively or with some delay; 3 -- Institutions are highly adaptive, responding effectively and immediately to change.	0	National ABS framework is underway for formulation. Implementation will follow.
	The ABS institution(s) has effective internal mechanisms for monitoring, evaluation, reporting and learning on ABS projects	0 -- There are no mechanisms for monitoring, evaluation, reporting or learning; 1 -- There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak; 2 -- Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be;	1	There are some mechanisms existed for other issues and they can also used for ABS issue.

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
		3 -- Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning.		
	Individuals from ABS institutions are adaptive and continue to learn	0 -- There is no measurement of performance or adaptive feedback; 1 -- Performance is irregularly and poorly measured and there is little use of feedback; 2 -- There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be; 3 -- Performance is effectively measured and adaptive feedback utilized	0	Normally there is short of the performance measurement in local institutions, and it can be established by conducting GEF/ABS project.

TOTAL SCORE: 11 out of a possible 69 = 16%

D. SUB-NATIONAL ABS INSTITUTIONAL CAPACITY SCORECARD – YUNNAN PROVINCE: BASELINE

Table 19: Sub-National ABS Institutional Capacity Scorecard –Yunnan Province: Baseline

Strategic Area of Support	Issue	Scorecard	Initial Evaluation	Evaluative Comments
1. Capacity to conceptualize and formulate policies, laws, strategies and programmes	The Access and Benefit-Sharing (ABS) agenda is being effectively championed / driven forward	0 -- There is essentially no ABS agenda; 1 -- There are some persons or institutions actively pursuing an ABS agenda but they have little effect or influence; 2 -- There are a number of ABS champions that drive the ABS agenda, but more is needed; 3 -- There are an adequate number of able "champions" and "leaders" effectively driving forwards an ABS agenda	0	ABS is a new concept for local government.
	There is a legally designated institution(s) responsible for ABS with the capacity to develop a provincial ABS framework (i.e., laws, policies and/or regulations)	0 -- There is no institution(s) responsible for ABS; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	1	Financial resource is not a problem in provincial government.
2. Capacity to implement policies, legislation, strategies and programmes	There is a legally designated ABS institution(s) responsible for ABS that can facilitate the implementation of the national ABS framework.	0 – The institution(s) does not have the financial resources, personnel, and planning/management skills; 1 – The institution(s) has financial resources but has limited personnel and planning/management skills; 2 – The institution(s) has financial resources and personnel but limited planning/management skills; 3 – The institution(s) has sufficient financial resources, personnel and planning/management skills.	1	As above
	The ABS institution (s) is effectively led	0 – The ABS institution(s) has a total lack of leadership; 1 – The ABS institution(s) has weak leadership and provides little guidance; 2 – The ABS institution(s) has a reasonably strong leadership but there is still need for improvement; 3 – The ABS institution(s) is effectively led	0	Usually ABS institutions in local level are always short of leadership

	Human resources for ABS management are well qualified and motivated	<p>0 -- Human resources are poorly qualified and unmotivated;</p> <p>1 -- Human resources qualification is spotty, with some well qualified, but many only poorly and in general unmotivated;</p> <p>2 -- Human Resources in general reasonably qualified, but many lack in motivation, or those that are motivated are not sufficiently qualified;</p> <p>3 -- Human resources are well qualified and motivated.</p>	1	Normally, human resources are lowly qualified in local level comparing with central government.
	The ABS institution(s) is audited and publicly accountable	<p>0 -- The ABS institution(s) is not being held accountable and not audited;</p> <p>1 -- The ABS institution(s) is occasionally audited without being held publicly accountable;</p> <p>2 -- The ABS institution(s) is regularly audited and there is a fair degree of public accountability but the system is not fully transparent;</p> <p>3 -- The ABS institution(s) is highly fully audited, and publicly accountable.</p>	1	Audit system is relatively weak in local governmental level.
	Enforcement of ABS regulations	<p>0 -- No enforcement of regulations is taking place;</p> <p>1 -- Some enforcement of regulations is taking place but it is largely ineffective;</p> <p>2 -- ABS regulations are regularly enforced but are not fully effective;</p> <p>3 -- ABS regulations are highly effectively enforced.</p>	0	ABS is quite new for local government
	Individuals are able to advance and develop professionally	<p>0 -- No career tracks are developed and no training opportunities are provided;</p> <p>1 -- Career tracks are weak and training possibilities are few and not managed transparently;</p> <p>2 -- Clear career tracks developed and training available; HR management however has inadequate performance measurement system;</p> <p>3 -- Individuals are able to advance and develop professionally.</p>	1	Occasionally participated in the training workshops organized by MEP

	Individuals are appropriately skilled for their jobs	0 -- Skills of individuals do not match job requirements; 1 -- Individuals have some or poor skills for their jobs; 2 -- Individuals are reasonably skilled but could further improve for optimum match with job requirement; 3 -- Individuals are appropriately skilled for their jobs	1	Individuals in local government are well educated, but currently they have no any experience and knowledge on ABS However, they can get improvement if training system is good.
	Individuals are highly motivated	0 -- No motivation at all; 1 -- Motivation uneven, some are but most are not; 2 -- Many individuals are motivated but not all; 3 -- Individuals are highly motivated	1	As Yunnan is the richest province on biodiversity and conservation awareness is higher than other provinces and motivation often exists in government and GNOs
	There are appropriate mechanisms of training, mentoring, and learning in place to maintain a continuous flow of new staff	0 -- No mechanisms exist; 1 -- Some mechanisms exist but unable to develop enough and unable to provide the full range of skills needed; 2 -- Mechanisms generally exist to develop skilled professionals, but either not enough of them or unable to cover the full range of skills required; 3 -- There are mechanisms for developing adequate numbers of the full range of highly skilled ABS professionals	1	As many international GNOs and domestic NGOs have set up office in Yunnan, their priority work is training program, therefor, some mechanism of training, mentoring and learning exist.
3. Capacity to engage and build consensus among all stakeholders	ABS has the political commitment	0 -- There is no political will at all, or worse, the prevailing political will runs counter to the interests of ABS; 1 -- Some political will exists, but is not strong enough to make a difference; 2 -- Reasonable political will exists, but is not always strong enough to fully support ABS; 3 -- There are very high levels of political will to support ABS.	1	Local government has interest in ABS as it is beneficial to local communities, so they normally have political will on ABS.

	Degree of public support on ABS issues	0 -- The public has little interest in ABS and there is no significant lobby for ABS; 1 -- There is limited support for ABS; 2 -- There is general public support for ABS and there are various lobby groups strongly pushing them; 3 -- There is tremendous public support in the country for ABS.	1	Many NGOs in Yunnan have play a role on public participation in biodiversity conservation.
	The ABS institution(s) is mission oriented	0 -- Institutional mission is not defined; 1 -- Institutional mission is poorly defined and generally not known and internalized at all levels; 2 -- Institutional mission well defined and internalized but not fully embraced; 3 -- Institutional mission is fully internalized and embraced.	0	Usually local institutional missions are only learned or copied from the central institutions.
	The ABS institution(s) can facilitate the partnerships needed to achieve its objectives	0 -- The ABS institution(s) operate in isolation; 1 -- The ABS institution(s) has facilitated some partnerships but significant gaps and existing partnerships achieve little; 2 -- The ABS institution(s) has facilitated many partnerships with a wide range of national and local agencies, private sector and NGOs but there are some gaps and partnerships, are not always effective and do not always enable efficient achievement of ABS objectives; 3 -- The ABS institution(s) has facilitated effective partnerships with national and local agencies, private sector and NGOs to enable achievement of ABS objectives in an efficient and effective manner.	1	In Yunnan Province, a preliminary partnership has been established on biodiversity conservation, mainly joined by the sectors of environment, forestry, agriculture, etc., and some joint-sectors activities have been conducted.
4. Capacity to mobilize information and knowledge	The ABS institution(s) has the information it needs to enforce the national legal/policy ABS framework and to facilitate ABS deals	0 -- Information is virtually lacking; 1 -- The ABS institution(s) has access to some information, but is of poor quality, is of limited usefulness, or is very difficult to access; 2 -- The ABS institution(s) has access to a lot of information which is mostly of good quality, but there remain some gaps in quality, coverage and availability; 3 -- The ABS institution(s) has the information it needs to enforce the national legal/policy framework and facilitate ABS deals.	1	The local institutions have accessed the limited information from the central government (MEP) by participating in some training workshop.

	Individuals from the ABS institution(s) work effectively together as a team	0 -- Individuals work in isolation and don't interact; 1 -- Individuals interact in limited way and sometimes in teams but this is rarely effective and functional; 2 -- Individuals interact regularly and form teams, but this is not always fully effective or functional; 3 -- Individuals interact effectively and form functional teams.	1	Individuals can interact well because they are very few people.
5. Capacity to monitor, evaluate, report and learn	There is a legally designated institution(s) responsible for ABS and able to update the ABS national framework	0 – The institution(s) does not have the financial resources, personnel, and expertise; 1 – The institution(s) has financial resources but has limited personnel and expertise; 2 – The institution(s) has financial resources and personnel but limited expertise; 3 – The institution(s) has sufficient financial resources, personnel and expertise.	1	Financial resources are not a problem for provincial government, but personnel and expertise are really problem in local level.
	ABS policy or law is continually reviewed and updated	0 -- There is no policy or law or it is old and not reviewed regularly; 1 -- Policy or law is only reviewed at irregular intervals; 2 – Policy or law is reviewed regularly but not annually; 3 -- Policy or law is reviewed annually.	0	As ABS is a new issue for all local government, there is no ABS policy and law at local government level.
	Society monitors ABS projects	0 -- There is no dialogue at all; 1 -- There is some dialogue going on, but not in the wider public and restricted to specialized circles; 2 -- There is a reasonably open public dialogue going on but certain issues remain taboo; 3 -- There is an open and transparent public dialogue about the state of the ABS projects.	1	Some dialogues have happened between government and NGOS on biodiversity conservation in Yunnan Province..
	Institutions are highly adaptive, responding effectively and immediately to change promoted by implementation of the national ABS framework (i.e., laws, policies and/or regulations).	0 – There is no implementation of the national ABS framework at the moment; 1 -- Institutions do change but only very slowly; 2 -- Institutions tend to adapt in response to change but not always very effectively or with some delay; 3 -- Institutions are highly adaptive, responding effectively and immediately to change.	0	National ABS framework is underway for formulation, Implementation will be occurred in future.

	The ABS institution(s) has effective internal mechanisms for monitoring, evaluation, reporting and learning on ABS projects	<p>0 -- There are no mechanisms for monitoring, evaluation, reporting or learning;</p> <p>1 -- There are some mechanisms for monitoring, evaluation, reporting and learning but they are limited and weak;</p> <p>2 -- Reasonable mechanisms for monitoring, evaluation, reporting and learning are in place but are not as strong or comprehensive as they could be;</p> <p>3 -- Institutions have effective internal mechanisms for monitoring, evaluation, reporting and learning.</p>	1	There are some mechanisms existed for other issues and they can also used for ABS issue.
	Individuals from ABS institutions are adaptive and continue to learn	<p>0 -- There is no measurement of performance or adaptive feedback;</p> <p>1 -- Performance is irregularly and poorly measured and there is little use of feedback;</p> <p>2 -- There is significant measurement of performance and some feedback but this is not as thorough or comprehensive as it might be;</p> <p>3 -- Performance is effectively measured and adaptive feedback utilized</p>	0	Normally there is short of the performance measurement in local institutions, and it can be established by conducting GEF/ABS project.

TOTAL SCORE: 16 out of a possible 69 = 23%

Annex 3. Social and Environmental Screening Report

Project Information

Project Information	
1. Project Title	Developing and Implementing the National Framework on Access and Benefit Sharing of Genetic Resources and Associated Traditional Knowledge
2. Project Number	PIMS 5310
3. Location (Global/Region/Country)	China, including three pilot regions: Yunnan Province, Hunan Province and Guangxi Zhuang Autonomous Region

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

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?

Briefly describe in the space below how the Project mainstreams the human-rights based approach

Access to, and sharing of benefits from, genetic resources is an important element of a human-rights based approach to the management of biological resources. Such an approach must be based on ensuring that holders of traditional knowledge are justly compensated at such a time as that knowledge is converted into marketable products. The project, by focusing on developing an ABS framework and piloting ABS agreements and associated benefit sharing arrangements, will contribute to advancing equity, fairness and broader human rights

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

In China's rural and agrarian economy, women play a predominant role, often as gatherers of food, firewood and livestock feed; as gardeners, plant domesticators, herbalists and seed custodians; and often as holders of medicinal knowledge. As is typical in many cultures, the preferences and utilization of biological resources differ between men and women. For these reasons, development of a national ABS framework, as well as pilot efforts, need to be gender sensitive.

The project design includes several measures to ensure gender equitable results, especially within the context of local communities. These include: (i) paying particular attention to the participation of women through inclusive approaches and processes in the implementation of planned project activities; (ii) Pilots will be monitored for their successful inclusion of women and corrective measures employed where this is not the case. The design of a benefit sharing mechanism will take special account of the need to ensure equitable distribution of any benefits that flow from ABS.

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

The ABS Framework being developed with support of the project will create economic incentives to conserve genetic resources and associated traditional knowledge by rewarding holders of such knowledge. It will operate in conjunction with, and create synergies with, related regulatory efforts such as the National Intellectual Property Strategy that also include environmental sustainability among their aims.

Part B. Identifying and Managing Social and Environmental Risks

<p>QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i></p>	<p>QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i></p>			<p>QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?</p>
<i>Risk Description</i>	<i>Impact and Probability (1-5)</i>	<i>Significance (Low, Moderate, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</i>
<p>Risk 1 Principle 1: Human Rights 5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?</p>	I=3 P=4	Medium	This risk may be existed but can be mitigated by thorough capacity assessment and capacity building support.	The project places importance on capacity building and provides technical support for a range of capacity building activities. These include training related to genetic resources and associated traditional knowledge, related ABS opportunities and associated barriers, and through technical support for negotiating and finalising ABS agreements working closely with duty bearers and rights holders.
<p>Risk 2 Principle 1 Human Rights 6. Is there a risk that rights-holders do not have the capacity to claim their rights?</p>	I=3 P=3	Medium		
<p>Risk 3 Principle 3: Environmental Sustainability: Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management 1.2 Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve,</p>	I = 1 P = 1	Low	While all of the designated genetic resources in the demo/pilots are already in agricultural processes, the original genetic material sources are, in some cases known to be sensitive areas, and in one case an area that is designated as a nature reserve.	One aspect of the ABS framework that will necessarily be given significant attention throughout the project will be the regulation of bioprospecting and wild collection of germplasm and other genetic resources. The goal of these efforts will be to mitigate or eliminate any new risks arising as a result of increased incentives to illegally find and utilize wild genetic resources. The proposed project will be implemented in a nature reserve (for protection of a camellia species), but the project’s activities will strictly follow the reserve’s management roles.

national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?				
Risk 4 Principle 3: Environmental Sustainability: Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management 1.9 Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	I = 1 P = 1	Low	Although the project's primary focus is the development of a legislative framework, the pilot/demos may include the collection of samples and or various activities, such as R&D, that are components of commercial development.	The overseen pilot/demos as well as the entire legislative development and implementation process will be oriented around identifying and preventing or mitigating any environmental or social risks attendant on the ABS processes.
Risk 5: Principle 3: Environmental Sustainability: Standard 4: Cultural Heritage 4.2 Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	I = 1 P = 1	Low	The pilot/demos involve both genetic resources and traditional knowledge (intangible cultural heritage) associated with those genetic resources, which are often held by ethnic minorities. In the course of these activities, negotiations and other activities may promote or bring about the commercial or other utilization of this heritage.	A key objective of the legislative development that is the primary objective of the project is the development of legislative protections that ensure that cultural heritage is only used with the consent of the affected communities, including ethnic minority communities. The project aims to ensure use of traditional knowledge will be done with full consent of the knowledge holders according to the provisions under the Nagoya Protocol. Project will also ensure that tangible and substantial local benefits will accrue to communities involved at the pilot sites, many of whom represent ethnic minorities in China. Agreements for access and benefit sharing will be signed by the GR/TK owners with PIC procedures, training programs and capacity building will take place in local communities, and the internationally recognized certificates for GR/TK will be issued by government with the full participation of minority communities. Similar activities related to minorities' involvement will be undertaken in other pilots. In all cases, care will be taken to ensure that participation and benefit sharing are gender-responsive.
QUESTION 4: What is the overall Project risk categorization?				
Select one (see SESP for guidance)			Comments	
<i>Low Risk</i>			<input checked="" type="checkbox"/>	
<i>Moderate Risk</i>			<input type="checkbox"/>	

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

Final Sign Off

<i>Signature</i>	<i>Date</i>	<i>Description</i>
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have “checked” to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have “cleared” the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP ATTACHMENT 1. SOCIAL AND ENVIRONMENTAL RISK SCREENING CHECKLIST

Checklist Potential Social and Environmental Risks	
Principles 1: Human Rights	Answer (Yes/No)
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	NO
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? ¹⁴	NO
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	NO
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	NO
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	YES
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	Yes
7. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	NO
8. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	NO
Principle 2: Gender Equality and Women's Empowerment	
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	NO
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	NO
3. Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	NO
4. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	NO

¹⁴ Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	NO
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	YES
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	NO
1.4	Would Project activities pose risks to endangered species?	NO
1.5	Would the Project pose a risk of introducing invasive alien species?	NO
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	NO
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	NO
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	NO
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	YES
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	NO
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	NO
Standard 2: Climate Change Mitigation and Adaptation		

2.1	Will the proposed Project result in significant ¹⁵ greenhouse gas emissions or may exacerbate climate change?	NO
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	NO
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	NO
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	NO
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	NO
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	NO
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	NO
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	NO
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	NO
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	NO
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	NO
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	NO
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	NO
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	YES

¹⁵ In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	NO
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	NO
5.3	Is there a risk that the Project would lead to forced evictions? ¹⁶	NO
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	NO
Standard 6: Indigenous peoples¹⁷		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	NO
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	NO
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to the screening question 6.3 is “yes” the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.</i>	NO
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	NO
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	NO
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	NO
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	NO
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	NO
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	NO

¹⁶ Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

¹⁷ The term ‘indigenous peoples’ does not have legal meaning in China. Thus, the answers to these questions are by definition negative.

Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	NO
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	NO
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	NO
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	NO
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	NO