



ECOSYSTEM PROFILE

MOUNTAINS OF
SOUTHWEST CHINA HOTSPOT

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INTRODUCTION

The Critical Ecosystem Partnership Fund (CEPF) is designed to better safeguard the world's threatened biodiversity hotspots in developing countries. It is a joint initiative of Conservation International (CI), the Global Environment Facility (GEF), the Government of Japan, the MacArthur Foundation and the World Bank. CEPF provides financing to projects in biodiversity hotspots. The hotspots cover only 1.4 percent of the Earth's surface yet contain more than 60 percent of terrestrial species diversity. A fundamental purpose of CEPF is to ensure that civil society, such as community groups, nongovernment organizations (NGOs) and private sector enterprises, is engaged in efforts to conserve biodiversity in the hotspots. An additional purpose is to ensure that those efforts complement existing strategies and frameworks established by local, regional and national governments.

CEPF promotes working alliances among diverse groups, combining unique capacities and eliminating duplication of efforts for a comprehensive, coordinated approach to conservation. CEPF is unique among funding mechanisms in that it focuses on biological areas rather than political boundaries and examines conservation threats on a corridor-wide basis for maximum return on investment. It focuses on transboundary cooperation when areas rich in biological value straddle national borders, or in areas where a regional approach will be more effective than a national approach. CEPF aims to provide civil society with an agile and flexible funding mechanism complementing funding currently available to government agencies. Given the political and economic landscape in China, however, it is important to recognize that the definition of civil society should not be strictly limited to NGOs but should also include research institutes, universities, associations, community groups, private sector, and even individuals.

THE ECOSYSTEM PROFILE

The purpose of the ecosystem profile is to provide an overview of the causes of biodiversity loss in a particular region and to couple this assessment with an inventory of current conservation activities to identify the niche where CEPF investment can provide the greatest incremental value. The ecosystem profile is intended to recommend broad strategic funding directions that can be implemented by civil society to contribute to the conservation of biodiversity in the targeted

region. Applicants propose specific projects consistent with these broad directions and criteria. The ecosystem profile does not define the specific activities that prospective implementers may



propose in the region, but outlines the conservation strategy that will guide those activities. For this reason, it is not possible or appropriate for the ecosystem profile to be more specific about the site or scope of particular projects or to identify appropriate benchmarks for those activities. Applicants will be required to prepare detailed proposals that specify performance indicators.

BACKGROUND

This ecosystem profile was compiled primarily from the results of a five-day workshop to determine conservation priorities in the Upper Yangtze, an area that encompasses the majority of the hotspot; meetings with government, civil society and conservation stakeholders; and a review of existing literature.

The focus of this ecosystem profile, the Mountains of Southwest China hotspot, overlaps with a WWF Global 200 region comprised of the Qionglai-Minshan Coniferous Forests, the Hengduan Mountains Alpine Coniferous Forests and the Nujiang-Lancang Gorge Alpine Conifer and Mixed Forests ecoregions. It also includes Yunnan Province, The Nature Conservancy's conservation focus in China. Politically, the region includes parts of western Sichuan Province, northwest Yunnan Province, eastern portions of the Tibet Autonomous Region, the southeast tip of Qinghai Province and the southern tip of Gansu Province. The hotspot is the most biologically diverse temperate forest ecosystem in the world.

The Provincial Planning Committee of Sichuan, CI, The Nature Conservancy (TNC) and World Wide Fund for Nature (WWF) organized the Conservation Priority-Setting Workshop for the Upper Yangtze, which was held in Chengdu, China from March 21-26, 2002. Although the workshop focused primarily on the ecoregions listed above; CEPF will provide resources for projects throughout the hotspot. The workshop brought together more than 80 Chinese and foreign experts in a participatory process to identify the region's most biologically important areas, assess threats and assign priorities for biodiversity conservation (Figure 1).

In addition to the workshop, meetings were held with other stakeholders, including central and local government agencies such as the Sichuan and Yunnan Forestry Departments, State Forestry Administration, State Environmental Protection Administration, Sichuan Tourism Bureau, Chengdu Tourism Bureau, Sichuan Construction Committee and Western Development Program Sichuan Office. Consultations were undertaken with county-level officials, nature reserve staff, local businesses such as tour agencies and operators, university environmental groups, local communities, local and international NGOs, bilateral and multilateral aid agencies and conservation experts. In all, additional meetings were held with 87 individuals representing 34 groups.

Mountains of Southwest China Hotspot With Biodiversity Conservation Priorities

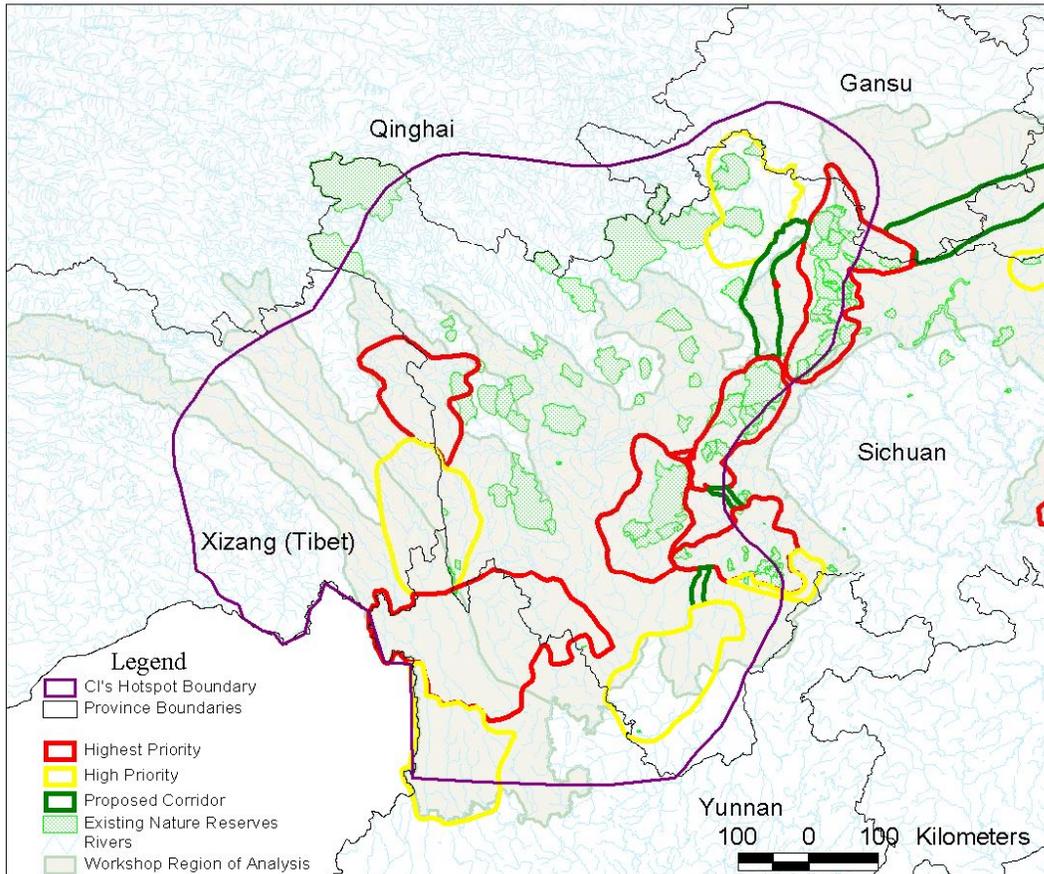


Figure 1. Map of the hotspot's boundary illustrating the conservation priorities defined by the Biodiversity Conservation Priority-Setting Workshop for the Upper Yangtze.

BIOLOGICAL IMPORTANCE

The Mountains of Southwest China hotspot stretches from southeast Tibet through western Sichuan and extends into central and northern Yunnan. Running along the border between the Chengdu basin and the Tibetan plateau, the rugged terrain of the hotspot is home to unique biological and cultural diversity. Rapid elevation changes of more than 6,000m between ridge tops and river valleys support a complete spectrum of vegetation types, from tropical, sub-tropical evergreen broadleaf forests at lower altitudes giving way at higher altitudes to deciduous temperate broadleaf forests, mixed broadleaf conifer forest, coniferous sub-alpine forests with a dense bamboo and rhododendron understorey to alpine meadows above the tree line. The tree line in this region can reach 4600m above sea level, among the highest in the world.

During the summer months, the Tibetan Plateau acts as a barrier to monsoon winds and the region becomes a cloudy moisture trap, giving the alpine flora lushness found nowhere else. The unique combination of topographic complexity and favorable moisture conditions in the region supports enormous richness of biological diversity and high degrees of endemism, likely the richest botanically in the world's temperate regions. More than 12,000 species of higher plants, of which 29 percent are unique to this hotspot (known as endemic), have been identified, including 230 species of rhododendron. Half of the rhododendrons are endemic in the region. Other endemic plant species include *Kingdonia uniflora* and two species of *Cycas*.

The wildlife in the Mountains of Southwest China hotspot is equally diverse, with more than 300 mammal and 686 bird species documented. The hotspot also holds a large number of special endemics and rare and endangered species, including giant panda, red panda, golden monkey, snow leopard, takin, sika deer, musk deer, white-lipped deer and at least 27 species of pheasant such as Chinese monal and white eared-pheasant. The complex topography of high mountain ridges and deep river valleys creates corridors for migration for bird species such as the black-necked crane. The Metdog County in southeast Tibet is home to the last remaining Bengal tiger population in China. Though it covers only about 10 percent of China's geographical area, the hotspot is home to about 50 percent of the country's birds and mammals and more than 30 percent of its higher plants. Furthermore, 36 of China's 87 endangered terrestrial mammals are found in the region.

This biological diversity is mirrored by great cultural diversity. The region is home to 17 of China's 55 ethnic minority groups, including the Bai, Dulong, Lisu, Naxi, Pumi, Nu, Qiang and Tibetan peoples. Over many generations, each of these cultures has accumulated a vast storehouse of indigenous knowledge of natural resources in this unique environment. The region is also traversed by some of the most important rivers in Asia, including the Bramaputra, Irawaddy, Mekong Salween and Yangtze rivers. Combined, these rivers affect the livelihood of more than half a billion people throughout a downstream area of some 3 million square kilometers.

As of the end of 2001, there were about 60 nature reserves in the region, 31 of which were designated to protect the giant panda. Most of the reserves were established in the past 10 years. The reserves cover nearly 4 percent of the total area of the region, according to the State Forestry Administration.

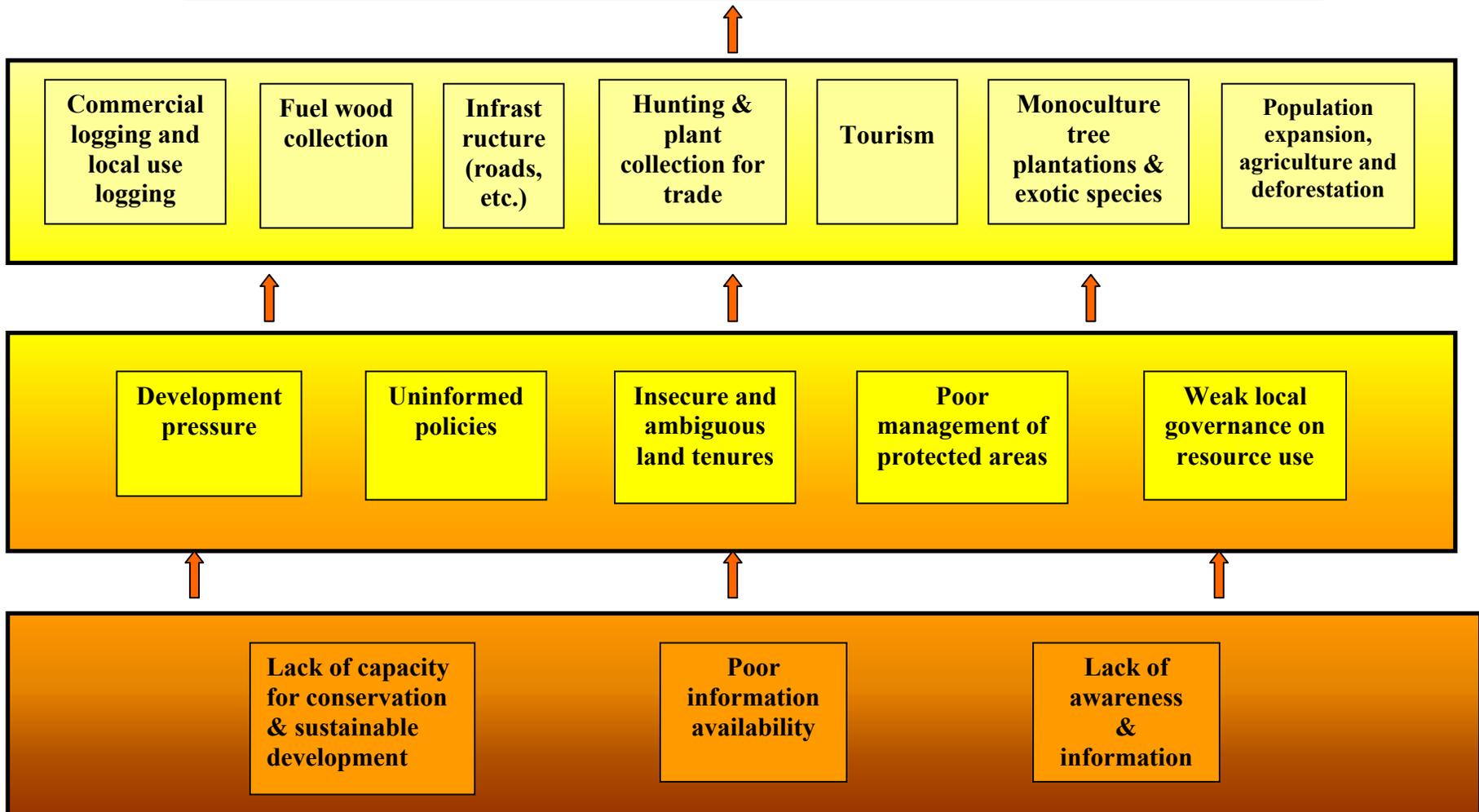
In an effort to establish scientific consensus on biodiversity conservation priorities for the Upper Yangtze region of China, more than 50 scientists participated in the priority-setting workshop. All three convening organizations (CI, TNC and WWF) recognize the global significance of this region and are implementing conservation programs in the area. The Sichuan Provincial Planning Commission is mandated with economic development of the western region of this important province, and recognizes the importance of sustainable development and conservation of the rich natural resources of Sichuan.

The team of experts assembled for the workshop together represented the best knowledge in each of their taxonomic specialties: mammals, plants, amphibians, reptiles, plants, fungi, insects, and vegetation. The best available species range and geographic maps and databases were made available to the experts throughout the process and served as important reference material, as well as to fill in gaps in expert knowledge. The methodology employed at the workshop facilitated the integration of expert knowledge and systematic conservation planning principles, while making use of several previously unavailable data resources.

With an objective of creating a biodiversity vision for the region, the experts worked to identify the areas that collectively represent the suite of landscapes essential to conserving the region's most biologically important landscapes and endemic and threatened species. The step-by-step methodology employed at the workshop produced maps and a unique area documentation database for each of the following:

THREATS AND ROOT CAUSES

Biodiversity Loss: Habitat destruction and species population decline



SYNOPSIS OF CURRENT THREATS

The rich biological diversity of the hotspot is threatened by excessive exploitation of the region's natural resources. Signs of the loss of biodiversity are evident, including forest and ecosystem loss, fragmentation and degradation of habitats, and species population declines. Tigers have not been seen in most of the region since the 1960s and an endemic otter disappeared in the 1970s following heavy logging and drying out of river valleys. A world famous ornamental maple tree was last seen in the wild in 1985. At the same time, forest cover has been reduced from 30 percent to 15 percent while the tributaries of the Yangtze have lost 85 percent of their original old-growth forest cover. Overstocking of goats, horses, sheep and yaks has resulted in severe damage to pastures. Medicinal plants are seriously over-harvested and many are now exceedingly rare in areas of former abundance. Laws against the illegal hunting and trading of endangered species are weakly enforced.

Ecosystem degradation has had significant social and economic impact as well. Each year 800 million tons of soil enters the Yangtze from Chongqing, Sichuan and Yunnan. The disastrous summer floods of 1998, which caused \$20 billion in direct economic damages, have been primarily attributed to deforestation and erosion on the upper Yangtze.

The current array of threats to biodiversity in the region is changing rapidly due to dramatic socioeconomic change in China during the past two decades. The following threat analysis, first broken down by direct pressures and then by indirect causes, covers the threats that contribute to biodiversity loss in the region today and in recent history. These threats should be understood as heterogeneous across time and localities, i.e., changing with altitude, ecosystem type, ethnic and cultural factors and policy. Because of limited time and availability of data, the following analysis of threats and their indirect causes remains general and does not distinguish between these factors. It may be necessary to collect additional information for a finer and more in-depth analysis on the threats that affect this region. Accordingly, the range of threats addressed by specific projects seeking CEPF funding must be evaluated through site-specific biological, social, cultural and economic analysis.

Direct Ecosystem Pressures

Habitat destruction is caused by a wide range of activities that lead to absolute loss of habitat as well as qualitative loss through fragmentation and degradation. Activities with adverse effects on populations of concern include those that cause both reduction in absolute numbers and reduction in the long-term viability of the species. The threats listed below follow a ranking on their relative degree of impact in general. However, it is also important to point out that 1) these threats are dynamic with the time and heterogeneous spatially; 2) many threats are interlinked — for example, erosion from construction of transportation infrastructure may also force villagers to expand agricultural production to new areas; mass tourism may create new markets for wildlife products. As a result, some of the threats listed in the diagram above are merged into each other in the following narrative analysis. Major direct threats include:

Logging

Forest ecosystems in the region were under intense pressure from commercial harvest by state-run enterprises from the early 1950s until a national logging ban took effect in 1998, limiting

logging to subsistence needs of local communities. State forestry management laws and regulations have traditionally prescribed a “quota management” system. In principle, such a system requires sustainable resource use by stipulating that annual timber harvests should be less than annual forest growth. In practice, however, the quota management system had been consistently overwhelmed by political events or development pressure. When timber markets were opened in the 1990s, no strong management mechanism was in place to properly deal with market-driven overharvesting by logging companies owned by different levels of government and by the communities that were involved as contractors and labors. At the same time, forest users did not pay sufficient attention to replanting in state-owned and collective forests. Compounding management problems, forest inventory statistics are often inaccurate, resulting in logging quotas well above annual growth increments. The resulting overharvests, combined with land conversion for agriculture, were the main causes for the loss of 85 percent of old-growth forest cover along the Upper Yangtze during this period.

In the 1950s, Western Sichuan was reported to have a natural forest cover of 9.8 million hectares. By the 1990s, overharvesting had reduced the natural forest cover to 2.4 million hectares, a 76 percent decrease. The 1998 national logging ban has been largely effective, but illegal commercial logging still occurs on a small scale. Logging for local use is permitted, which, combined with the land tenure issue (see below), may still have a local impact on biodiversity. It was reported that approximately 80 million cubic meters of illegal logging occurs nationwide each year. The impact of subsistence logging is difficult to quantify, but can be significant. For example, a case study by The Nature Conservancy in Diqing prefecture, Yunnan, showed that 960,000 cubic meters of logging for household needs was approved in one year.

As a result of the logging ban, current logging is predominately a subsistence activity sold in local markets rather than large-scale commercial activity. However, timber extraction from neighboring biodiverse countries such as Burma, Malaysia, Indonesia, the Russian Far East and as far as Western Africa has increased for exportation to China as a result of the policy—raising the larger question of how China will sustain its timber needs over time.

Illegal Hunting and Unsustainable Harvest and Trade of Wildlife

The harvest of endangered animal and plant species is one of the most acute causes of species population decline in the region. Although hunting is almost always illegal, many reserves and law enforcement units are not sufficiently staffed or funded to enforce wildlife laws effectively. Significant declines have already been recorded in economically valuable species such as the musk deer. Due to weak law enforcement and management capacity, harvesting of wild plants and other nontimber forest products that are sold primarily for use as foods or traditional medicine is often unsustainable. Overcollection of certain nontimber forest products, such as orchids and matsutake mushrooms, is already apparent in many areas. In some places, highly sought-after species are no longer found outside of strictly protected nature reserves or have disappeared altogether. The importance of hunting and foraging for nontimber forest products in local economies has increased as a result of the logging ban and a growing market for these products.

In addition to the local poachers and collectors supported by illegal and legal harvest of wild animals and plants in the region, there is a chain of middlemen who profit from moving these

items from the initial supplier to the consumer. Middlemen often come from provincial centers, and then hand off these commodities to brokers in major Chinese cities, who then may ship them on to international centers such as Hong Kong, Sydney and San Francisco. Therefore, it is important to note that addressing this threat will require interventions not just at the local level, but also at the levels of national and international end-use markets. In the case of legal harvesting and trade, there is little monitoring and baseline data available to support sound management that prevents these activities from being unsustainable.

A study by the China Council for International Cooperation on Environment and Development showed that approximately 53 percent of animal products commonly used in Chinese medicines come from nationally and internationally protected animal species. Since harvest levels are very sensitive to market demand, markets represent a potential control point.

Infrastructure

Construction of infrastructure such as roads, dams and power grids is an important part of regional development plans. Basic infrastructure is lacking in many areas — for example, there are only 9.7 kilometers of road per 100 square kilometers in Western Sichuan, and many villages are inaccessible by road. The government is committed to changing this situation, and the Western Development Program features slogans calling for road access, television, telephone and electricity for every village. However, infrastructure projects generally fail to include environmental impact assessments or other mitigation plans. Road projects directly and indirectly damage ecosystems. Another side effect of greater road access is increased potential for trade in wildlife and nontimber forest products.

Fuel Wood

Collection of fuel wood, which is permitted under the National Natural Forest Protection Program poses a threat to forest ecosystems. There is little fine-scale information on consumption in the region, but year-round heating, cooking and preparation of livestock feed require large volumes of fuel wood. While consumption levels vary with altitude and between ethnic groups, an average household will consume between 10-30 cubic meters of fuel wood per year. In Yunnan's Diqing prefecture, for example, this amounted to 600,000 cubic meters of fuel wood in one year. Before the logging ban, a substantial percentage of fuel wood was collected from logging slash on state-owned lands; now villagers are forced to rely more heavily on their own collective forests. In most areas, these forests are not managed in a sustainable manner.

Tourism

This rapidly growing sector of the Chinese economy has created high hopes for both economic development agencies and environmentalists looking for alternatives to the timber industry in this region. As Chinese citizens have increasing leisure time and disposable income, growing numbers of domestic tourists flock each year to nature reserves and wilderness areas. While there is potential to harness this market to support sustainable management of these areas, mass tourism as currently practiced is harmful to local environment and culture. Construction of new roads, hotels and cable car tracks in natural areas — as well as increased demand for food, fuel and water — are all factors in habitat degradation. Particular care must be taken to limit the impact of the growing demand for “green food,” i.e., natural delicacies collected from the wild. Furthermore, as in many other countries, tourism usually benefits outside developers rather than

local communities. Few measures have been taken to control the volume and impact of tourism. A recent government proposal would allow privatization of tourism management in scenic and natural areas, but the proposal offers little guidance on environmental standards for private management. Although the term “ecotourism” is widely used to describe the tourist industry in natural areas, there are few examples of sound ecotourism projects in the region.

Agriculture, Population Expansion and Deforestation

Conversion of forestland for agriculture has reduced, fragmented and degraded natural habitats. Expansion of agriculture during the last 50 years has been driven heavily by population growth. In addition, government mandates to reach unrealistic production targets caused local governments to expand the area of production to relatively unproductive lands from the 1950s to the 1970s. Similarly, in some areas, population growth along with relocation of immigrants to areas outside of their traditional agricultural practices has expanded the area of cultivation and introduced farming practices not suited to the locality. Total population in China – the most populous country in the world - according to the 2000 population census is 1,273,111,290 and increasing daily by 31,000 people at an estimated .88 percent yearly growth rate. The provinces that overlap with the hotspot: Sichuan, Yunnan, Tibet, Qinghai and Gansu have a combined population of 160,000,000. This rapid population growth is a potential obstacle to conservation in this region. The extreme topography characteristic of the region is another serious challenge to sustainable agriculture and has resulted in a number of secondary environmental problems. For example, of the 4.5 million hectares under cultivation in Sichuan, approximately 760,000 hectares under cultivation occurs on land with slopes above 25°. Slope lands contribute 11 percent of total grain production in Sichuan or nearly 4 billion kg per year, with an average yield of 5,190 kg per hectare. Unsustainable cultivation of sloping lands has led to high levels of erosion and landslides. It has created tracts of scrub wasteland in some places. Livestock are an important part of local agriculture, however, overgrazing presents a serious threat to high altitude pastures and forest regeneration efforts. Since the late 1980s, Chinese law has prohibited forest clearance for cultivation. Under the government program on converting sloping farmland to forest and grassland launched in 2000—Grain to Green—further clearance of forestland for agriculture will not likely happen at a large scale in the near future.

Indirect Pressures

The scope and intensity of threats to habitat and wildlife are driven indirectly by policies or socioeconomic conditions at the national, provincial and county levels. As in the case of direct threats, and perhaps to an even greater degree, there are strong links among distinct indirect factors. Therefore, some of the threats shown in the above diagram are merged together for the convenience of analysis.

Development Pressure and Government Policies

Government policies have promoted rapid economic growth since 1980, stimulating local demand for improved living conditions. From 1949 to 1995, the population living on the upper Yangtze grew by 120 percent to 163 million. A growing population and resulting development have greatly increased the pressure on land and forest resources in the region. In the 1990s, with growing awareness of environmental degradation and its consequences, sustainable development and environmental protection were incorporated into China’s national development strategy. However, development policies, once implemented, tend to encourage short-term economic

benefit and seldom take long-term economic sustainability and the environment into consideration. For example, the Great Western Development Program currently under way aims to bridge the gap between affluent coastal areas and underdeveloped interior provinces. Although sustainability is a nominal component of the program, erosion, landslides, and habitat fragmentation and alteration are inevitable results of the program's large-scale infrastructure projects, especially when responsibility for implementation rests at the local level. The impact of ancillary industries—for example, concrete—are also evident already.

Environmental policies often suffer from insufficient scientific analysis and, as a result, implementation is often incomplete and less effective. Well-intended environmental initiatives sometimes lead to new problems. For example, since the 1980s, the Chinese government has launched several large-scale planting programs in the Yangtze watershed, including the recent National Natural Forest Protection and Grain to Green programs. Over the years, monoculture plantations have emerged and exotic tree species have been introduced, reducing both biodiversity and timber yields. In some areas, monoculture plantations suffer serious pest outbreaks. Even though the National Natural Forest Protection Program provides substantial funding to offset lost income, the funding goes only to state-owned logging companies and local governments—not to communities or individuals. Local people, therefore, turn to new sources of livelihood, such as nontimber forest products and wildlife trade, with adverse ecological impact.

Poor Reserve Management

Since 1990, China has been rapidly expanding its nature reserve system. By the end of 2000, China had 1,276 nature reserves covering a total of 12.4 percent of the nation's land. However, there has never been a stable financial mechanism in the national budget to support these protected areas. Even when government funding is available, it is usually limited to one-time appropriations to build infrastructure. In Yunnan, operating budgets in reserves are paid by the provincial government, while reserves in Sichuan are mostly paid by counties. Consequently, many protected areas remain protected only on paper or are forced to generate income. The latter is not only inconsistent with the purpose of protected areas, but also a source of conflict with local people competing for resources. Some reserves are given multiple designations—scenic area, forest or tourism park, and nature reserve, such as Jiuzhaigou and Gonggashan in Sichuan—each function being managed by a different government department with a different regulatory agenda. Overlapping mandates cause confusion, undermine the coherence of management plans, and marginalize conservation objectives. There are no standard criteria or mechanisms to evaluate the effectiveness of nature reserves. Combined with weak institutional capacities and poor staff morale, these factors limit the performance of reserve management. The World Bank-sponsored National Forestry Nature Reserve System Plan study states that, “of 217 reserves, 25% of nature reserves have no patrols; 75% have no monitoring programs in place; and 70% lack comprehensive inventories of resources.” The results of these studies form part of the outputs of the World Bank/GEF China Nature Reserve Management Project produced for the Wildlife Division of the State Forestry Administration.

Insecure and Ambiguous Land Tenure

In rural areas of China, political changes over the last fifty years have been felt most directly through repeated changes in land tenure arrangements. Two major changes are land nationalization and communization in the 1950s and household responsibility or privatization

that started in the late 1970s and is still continuing today. These tenure changes, together with the irregularity in the administration of land-tenure policies, introduced uncertainty to land tenure, often with negative environmental consequences, such as rashes of illegal logging and preemptive clearing of land. Today most forestland falls into three basic categories of tenure: state, collective (community forests) and household (use rights). The actual resource use by local communities, however, often does not follow the official boundaries of tenure, making resource management difficult. Reasons are often complicated. For example, many ethnic Baima villages in Pingwu County, northern Sichuan, have had neither collective nor household forests allocated since the 1950s. As a result, the Baima people have long illegally collected fuel wood in state-owned forests around villages. In addition, the insecurity caused by constant policy change has made it difficult to link rights and responsibilities, especially when such responsibilities require long-term commitments. After the National Natural Forest Protection Program launched, individuals invested in tree plantations for future sustainable timber harvesting under a 30 or more year land lease contract suddenly lost the ability to manage their lands for timber due to the logging ban. The Grain to Green program encourages farmers to plant trees by providing them with financial subsidies and issuing the rights of harvesting the trees they planted. Yet under the logging ban, such a right becomes uncertain. Inconsistent policies cause confusion. With increasing privatization of land and resources in this region and in China there is an acute danger that private contractors, especially those from outside, are only managing for short-term economic return. Examples of such cases are already evident.

Root Causes

Although indirect pressures and the following root causes are intertwined and difficult to rank individually or separated clearly, it is worthwhile to point out the factors that have a fundamental impact on most direct and indirect threats. In other words, by changing these factors, many efforts that attempt to deal with the threats will benefit. These factors can be summarized as follows:

Lack of Information and Awareness

Government and civil society lack or have poor access to sufficient ecological data and analytical information on social economy to inform their decisions. Conservation efforts are inconsistently monitored and evaluated, and when they are, the resulting information is inconsistently shared among conservation players and with decisionmakers. Therefore, it is difficult to accumulate institutional memory and benefit from lessons learned. Lack of sufficient information and awareness has led repeatedly to policies that do not take biodiversity conservation into consideration. In general, people recognize the importance of forests for resources and erosion control and the importance of clean air and clean water to human health, however, the ecological value of biodiversity in human life is less informed.

Furthermore, the ecological impact of development and economic policy is often ignored simply because the importance of biodiversity is not understood. Development policies often set economic growth as the most important criterion for evaluation. At perhaps the most fundamental level, failure to value biodiversity is a root cause of environmental degradation. A sustainable approach to conservation must inform communities, business and government of their connection to nature and offer alternative lifestyle choices.

This region contains extremely complex patterns in the distribution of biodiversity. Existing information is scattered and often non-accessible to non-specialist audiences. Existing information on biodiversity and conservation in the region needs to be pooled, managed, mapped and synthesized to make it more accessible and to ensure the appropriate information is used to inform policies, projects and programs.

Lack of Capacity

Even when stakeholders are motivated to protect biodiversity, their financial, technical, and management capacities are often insufficient. Leadership capacity is lacking at many levels—government, community and nature reserves—and impedes all aspects of conservation action, from policymaking to grassroots initiatives. Conservation professionals often have inadequate training or preparation. For example, in a GEF survey of 217 reserves, only 3 percent of staff was found to have a four-year college education, while nearly 26 percent had little or no education. Most reserve directors do not have the necessary knowledge of biology and ecology nor necessary management skills to deal with complex conservation issues. The new National Natural Forest Protection Program pays for former loggers to become forest wardens and managers but without adequate provision for education and training.

With the trend toward privatization, communities will play an increasingly important role in China's civil society. Sustainable resource use will increasingly depend on improving capacities for self-governance at the community level. The social awareness and skills on resource management at village level, which integrate with traditional indigenous social system, will be critical.

Capacity, in turn, depends on training. Few universities and institutes offer conservation education programs and even fewer offer multidisciplinary training to solve practical problems in conservation. Capacity building is an urgent need in this region and throughout China.

SYNOPSIS OF CURRENT INVESTMENTS

Major conservation investments in the Mountains of Southwest China hotspot come from the Chinese government, multilateral and bilateral aid agencies, and international conservation organizations.

Chinese Government

The Chinese government is the largest investor in the region, with multibillion-dollar programs. These include the National Natural Forest Protection, Grain to Green and National Endangered Plant and Wildlife Protection and Nature Reserve programs, all of which are managed by the State Forestry Administration.

Geographically, the National Natural Forest Protection and Grain to Green programs are focused on the Upper Yangtze and Yellow rivers. The programs focus on reducing erosion from deforestation and cultivation of sloping lands. The combined budget for the programs is estimated at \$40 billion over 10 years, beginning in 2000 and ending in 2010. The primary expenditures of the National Natural Forest Protection Program are subsidies to logging companies and local governments; retraining of loggers; reforestation and forest maintenance. The Grain to Green program subsidizes individual households — farmers are paid for grain, trees and maintenance and promised the right to use the trees they plant. These two large-scale programs present perhaps the best opportunity to protect ecosystems and landscapes, but significant gaps remain in these programs and their implementation. In addition, both programs expire in 2010 and their long-term ecological impact is still uncertain. While they offer an opportunity to solidify and expand protection of key biodiversity areas, there is obviously enough space to work on longer-term solutions. For example, the recently announced Ecological Compensation Fee would help restructure the Chinese timber industry in favor of sustainable forestry. A comprehensive land use plan is necessary to define different patterns of forest use (commercial, protected and subsistence), accommodating both local needs and the public interest in environment and sustainable development. Above all, to achieve long-term ecological protection—the objective stated by both programs—their scope should be broadened from merely tree plantation and forest protection to an integrated ecosystem restoration and biodiversity conservation to maximize the ecological return on such a large investment.

The National Endangered Plant and Wildlife Protection and Nature Reserve Construction Program (NCP) is a new government program aimed at protecting China's biodiversity in the next 50 years. The total budget is \$16.5 billion. The program is intended to improve the existing protected area system, establish new reserves, and protect and restore 15 species of endangered plants and animals nationwide. Yunnan and Sichuan provinces developed their provincial plans accordingly. In the hotspot region, the program aims to expand the nature reserve system by increasing reserves from 60 to 260 by the year 2010 and to triple the number of protected areas. The program will support 30 wildlife corridors, a few wildlife monitoring stations and conservation plans for key endangered species such as giant panda, golden monkey, musk deer and orchids. This is the largest governmental investment in biodiversity conservation ever. In 2002 alone, Yunnan and Sichuan provinces received more than \$8 million, more than the total funding for protected areas in these two provinces in the last 10 years. However, like previous government investment, this fund is mostly earmarked for construction of infrastructure and provides little for improved management.

It is also worth mentioning that following the 1992 Rio Summit and signing of the Convention on Biological Diversity, the Chinese government, under the support of GEF, developed a National Biodiversity Conservation Action Plan in 1995. The plan provides a useful guideline for foreign assistance in biodiversity conservation in China.

Bilateral and Multilateral Donors

The World Bank/GEF and the *Deutsche Gesellschaft für Technische Zusammenarbeit* (GTZ) fund the largest multilateral and bilateral aid conservation programs in the region. Between 1997 and 2001, GTZ funded the panda nature reserve program in Sichuan. A second phase is being planned to continue this program. GTZ's focus is to enhance nature reserves by improving local community livelihoods. The World Bank through the GEF has been involved in biodiversity conservation since 1995. The World Bank/GEF is financing a nature reserves management project with an investment of \$17.5 million to improve management of 10 nature reserves in China. In Yunnan province, the project included the development of management plans for two nature reserves in the ecoregion. A new World Bank/GEF and European Union (EU) sustainable forestry development project was recently approved. This new project includes three components: a GEF grant (\$16 million) for nature reserve management (nine in this region), focusing on participatory reserve management, and capacity building; an EU grant (\$15 million) for natural forest management, targeting the gaps existing in the National Natural Forest Protection Program such as development of sustainable forestry techniques and training on forestry management, vocational training for laid-off loggers and community development; and a World Bank loan (\$93 million) for plantation establishment to meet the increasing demand for wood and other forest products as a result of the logging ban. In this new project, Sichuan is included in the first two components and Yunnan in the second component. The United Nations Development Programme (UNDP) through the GEF has invested in conservation in northwest Yunnan and in a series of energy and climate projects in the region.

The British, Dutch and Italian governments fund other bilateral aid projects in the region. The Japanese government assisted researchers and experts in conducting joint training and scientific research on animals and plants in Yunnan.

Two working groups under the China Council for International Cooperation on Environment and Development (CCICED) conducted relevant policy research and provided recommendations. The Biodiversity Working Group (BWG) has drafted a number of technical reports on diverse topics including nature reserve management, use of native species in reforestation efforts, sustainability of traditional Chinese medicine and conservation of grasslands. With EU funding, BWG helped establish the China Species Information System that provides Internet-based information on nature reserves, endangered species, experts, invasive species and other topics. The Forest and Grassland Taskforce dealt with the issues related to the National Natural Forest Protection and Grain to Green programs and implementation through case studies and provided suggestions for these programs. It intends to broaden the debate on forest policies beyond the government.

The advantage of these multilateral and bilateral programs is their direct access to government and national policies. One example is the World Bank/GEF nature reserve project, in which the

information gathered and approaches presented have been incorporated into new national plans for a reserve network. However, multilateral and bilateral programs generally work only through the national government, potentially limiting their scope of work and their impact on civil society. The sustainable benefits of these programs are also limited by governmental personnel systems and structures.

The Government of Japan has contributed to several collaborative projects between the two countries, focusing on conserving biodiversity in the Yunnan Province of China with funding provided through the Ministry of the Environment of Japan. Professor Iwatsuiki and Professor Ohba of Tokyo University are conducting research projects on floral diversity in the Yunnan Province, in collaboration with the Yunnan Branch for Chinese Academy of Science.

Under the auspices of the collaborative project for establishing an international monitoring network on migratory birds, the Ministry of the Environment, Japan co-hosted a technical training course for bird-banding survey in Yunnan Province in 1997. The Forestry Department of Chinese Government, Yunnan University, Yamashina Institute of Ornithology of Japan, and other stakeholders participated in the training course.

Upon the request of the Chinese Government's National Environmental Protection Agency (NEPA) a project funding mission from the Japan International Cooperation Agency has evaluated establishing a biodiversity centre in Yunnan Province.

International NGOs

International institutions have taken a relatively comprehensive approach to biodiversity protection in the region. To date, the Ford Foundation, TNC and WWF are the most active and influential organizations operating projects on the ground. Local and national projects focus on species conservation; integrated conservation and development projects; regional planning; sustainable community development; environmental education; and effectiveness of nature reserves. NGO projects have helped close the gaps in governmental programs and brought in new ideas and approaches in conservation, especially in participatory processes in project design, planning and management and in local capacity building. While a number of successes have been recorded, the primary gaps in current international NGO programs are geographic (i.e., in areas where no projects exist) and a lack of coordination. Tighter links and data sharing between projects in different organizations and localities would significantly improve the results of these programs. This could compensate for inadequate monitoring and evaluation and help create a useful base of shared knowledge. The Biodiversity Conservation Priority-Setting Workshop for the Upper Yangtze illustrated the importance of these benefits and was a good first step.

World Wide Fund for Nature has perhaps the longest history of conservation work in China. WWF's work began with Panda conservation in the Wolong Nature Reserve in 1980, followed by a national panda and habitat survey and a national panda conservation plan in late the 1980s. Since 1995, WWF has launched a number of Integrated Conservation and Development Projects (ICDP's) in the Upper Yangtze, in areas such as Wanglang Nature Reserve (Pingwu County, Sichuan) and Baimaxueshan Nature Reserve (Deqin County, Yunnan). One notable feature of the ICDPs is their strong emphasis on participatory planning and capacity building, including training for trainers in Sichuan Forestry School. Recently, WWF also initiated an ecoregional

planning process in northern Minshan area, and has developed a strong forest policy and sustainable forestry program in China. WWF has offices in both Beijing and Sichuan. Its program areas include species and protected areas, forest, ecoregional planning, environmental education, wetlands conservation and public advocacy.

The Nature Conservancy is engaged in a large-scale ecoregional conservation project located in northwest Yunnan province. The project encompasses four prefectures and 15 counties, an area of approximately 66,000 km², and falls within the hotspot. The Yunnan Provincial government and TNC committed \$5 million to the project over five years, beginning in 1997. The project includes five modules, (1) biodiversity protection; (2) cultural resource protection; (3) sustainable economic development; (4) regional planning; and (5) geographic information system mapping. As part of this project, a regional conservation and development action plan and an ecoregional conservation plan have been developed. Current activities are focused on conservation management activities and sustainable development initiatives in Meilixueshan/Kawagebo in Deqin County, Laojunshan in Lijiang, Jianchuan and Lanping counties, Nujiang Grand Canyon in Gongshan, Fugong and Lishui counties, and Lashihai Watershed in Lijiang County.

Conservation International is an emerging actor in conservation in the region, focusing mainly on South-Central Sichuan. Aside from advising government agencies and local communities on the sustainability of economic development in areas of biological richness in the Hengduan Mountains, CI has supported the ecoregional conservation priority-setting process for the Upper Yangtze region. CI's presence in the region should increase substantially over the next few years as it orients toward more ground-level conservation and development activities.

Ford Foundation began its China Program in the late 1970s. Its aim in the hotspot region is to help poor upland communities in southwest China to derive sustainable livelihoods from natural resources. It focuses on capacity building for community forestry practice and policy; people-centered development approaches; and the nexus between minority culture and natural resources management. Ford Foundation support has raised the capacity of Chinese NGOs, increasing their ability to influence governmental agencies, such as the Forestry Department, in implementing government-funded projects.

Wildlife Conservation Society has sponsored and conducted continuous and extensive wildlife research and surveys in Sichuan, Tibet and other remote areas in this region since the early 1980s. WCS also conducted reserve management training and environmental education projects in Yunnan and Sichuan.

TRAFFIC has identified the region as a primary source for wildlife products used in traditional East Asian medicine and a priority for expanded conservation action. Following its recent comprehensive study of the international trade in China's traditional plant-based medicines (funded by the German *Bundesamt für Naturschutz*), TRAFFIC is exploring new opportunities to research markets for illegal and/or unsustainable wildlife collection and to identify the needs of local producers, wildlife law enforcers, policy makers and consumers. TRAFFIC places specific emphasis on ensuring that wildlife trade is maintained within sustainable and legal levels and does not endanger any species of plant or animal, or have negative impacts on ecosystems.

The World Conservation Union (IUCN) has been active in China for more than 15 years. As a member country, China participates in IUCN's regional and global activities and many Chinese scientists participate in the organization's six expert commissions. Its work includes implementation of international conventions and policy advice on biodiversity conservation through activities like the Red List Programme and relevant training. IUCN's geographical focus is in Southwest China. The Regional Forest Program has prepared project proposals on forest management in Southwest China. The Regional Biodiversity Programme for Asia (RBP) is actively working in China to help the Dujiangyan municipality develop a sub-national Biodiversity Action Plan (BAP).

MacArthur Foundation's focal area in Indo-Burma covers western Yunnan and southeastern Tibet. Since the mid-1990s, the MacArthur Foundation has funded a number of projects through WCS, Kunming Institute of Zoology and the Tibet Forestry Department on environmental education, biodiversity surveys and training.

The Bridge Fund has recently funded a series of studies looking at resource use in Tibetan communities in Western Sichuan and at the impact of the National Natural Forest Protection and Grain to Green programs. Other projects include reforestation and revegetation, environmental education by Buddhist leaders, and ecotourism training workshops.

Global Greengrants Fund is a global NGO network that provides small grants to grassroots NGOs for capacity building. Recently GGF initiated its support in China.

American Zoos such as the San Diego Zoological Society, Atlanta Zoo, Washington Zoo and National Zoological Society, which have a pair of pandas loaned from Chinese zoos and breeding centers, each pay at least \$1 million per year to support panda conservation as part of the loan agreements. The agreements also require the zoos to conduct scientific research on pandas, including captive breeding and natural history in the field. Zoo Atlanta's new conservation education program in China and the United States is designed to reach people of all ages about endangered species in Asia.

Chinese NGOs

Due to China's political structure, civil society has not yet materialized as a major player in conservation efforts. While most universities and colleges have student environmental groups, they are predominately focused on occasional small-scale lobbying or media events. There are a few NGOs in the region doing solid projects on community development and resource management. The most significant is the Participatory Rural Appraisal Network in Yunnan and Sichuan. Members of the network recently formed several NGOs and have actively participated in projects in Yunnan and Sichuan with international NGOs and bilateral agencies. They have also initiated their own projects, mostly focusing on community development and natural resource management. Among them are the Center for Biodiversity and Indigenous Knowledge; Center for Community Development Studies; the Sichuan Aihua Institute for Community Development and Resource Management; and the Yunmen Development Institute. There are also environmental NGOs formed by committed environmentalists in the region, such as Green River and the Green Plateau Institute, connected to both national and international NGO networks and

doing small-scale, volunteer work on environmental issues in the region. With help from non-Chinese organizations and others, a number of successful community groups have formed to support sustainable use of local resources. China's promotion of democratic elections at the village and township level presents a potential opportunity to integrate conservation and civil society capacity-building efforts. Scientific institutes, universities and associations are also actively involved in research and conservation projects in the region. Individual researchers often play the role of catalyst to promote conservation actions such as setting up nature reserves. In general, the capacity of Chinese NGOs needs to be greatly enhanced to meet the increasing needs of conservation in the region.

Private Businesses

To date, few Chinese private businesses have shown interest in promoting conservation through their businesses or have the capacity to deal with environmental issues, especially on biodiversity conservation. However, the following fields have great potential to develop business conservation partners in future: ecotourism operators, wilderness clubs, nontimber forest product companies and the traditional medicine industry. The logging ban has magnified the importance of these sectors in regional development plans.

In summary, the biggest gaps in current investment are in conservation capacity at the grassroots level and in nature reserves; coordination of conservation activities by different stakeholders; and shared knowledge. There is also a geographical gap that has not yet received attention, such as the Tibetan areas of southwestern Sichuan. It is also important to leverage major government investment for a broader and long-term impact.

CEPF NICHE FOR INVESTMENT

CEPF's funding niche in the Mountains of Southwest China hotspot was determined by the following overarching factors: 1) the Chinese government, bilateral and multilateral aid agencies, along with other international organizations are already providing substantial financial support to environment-related programs in this region; 2) the hotspot is a large and complex area, facing threats which are dynamic and subject to a fast-changing landscape of political and socioeconomic conditions; 3) CEPF investment in this region is limited to five years and would be a modest sum in comparison with the aforementioned funding.

With those factors in mind, CEPF's niche for this region should be defined by the current scarcity of local and regional civil society organizations and individuals working in the realm of biodiversity conservation. The conservation movement in China is at a fledgling stage. Given the scarcity of civil society in China, however, it is important to recognize that the definition of civil society should not be strictly limited to NGOs but should also include research institutes, universities, associations, community groups, private sectors, and even individuals. With its relatively modest amounts of funding, CEPF can help nurture key individuals who would be capable of seizing opportunities for conservation presented by major national policy changes in favor of biodiversity, to build an environmental alliance in the region, and to work through larger existing initiatives toward conserving the area's remaining biodiversity and natural spaces. The next few years offer an unprecedented opportunity to safeguard the region's natural areas and species through finding, supporting, training and encouraging alliances among local

conservation-minded individuals and organizations capable of working within China's unique and complex system.

Massive governmental investment in national-level policies such as Grain to Green, the National Forest Protection Program and the Western Development Program are providing coverage at the level of policies and infrastructure, but there are few individuals, organizations, businesses and communities trained to mitigate threats and take advantage of opportunities for hands-on, measurable and sustainable conservation at the ground level. CEPF will strive to identify, train and create partnerships with individuals with the potential to influence local, regional and national policies and investments in favor of biodiversity conservation.

CEPF will seek opportunities to complement existing programs and to fill in programmatic gaps remaining in the Mountains of Southwest China hotspot. Geographically, CEPF will focus exclusively on the region within the hotspot's defined boundaries, which encompass parts of three WWF ecoregions and TNC's focal landscape in Yunnan Province.

CEPF INVESTMENT STRATEGY AND PROGRAM FOCUS

The Chinese Government has been effective at enforcing a national logging ban, creating legal nature reserves and parks, building infrastructure and providing hardware for conservation and enforcing protection of park boundaries. Currently, the Government is undertaking massive investments in reforestation projects and in conversion of pastureland to forest. All of this investment provides an opportunity for CEPF investment to focus on complementing this governmental effort in conservation by providing resources to build the capacity of civil society to implement smaller, more localized conservation projects and to nurture leaders who will be capable of interjecting biodiversity aspects into the larger development efforts. Regional planning authorities have requested civil society input on the best methods to employ in the future development and/or design of roads, dams and cities as part of the Great Western Development Program. Targeted CEPF investment can ensure that regional planning authorities are provided with suggestions and innovative approaches and applied models for best practices and recommendations on how to design and implement conservation-conscious development projects. CEPF's hypothesis for this region holds that investing and developing in a targeted group of individuals who will become conservation leaders capable of interjecting biodiversity concerns into government efforts will result in a significant measurable increase in conservation of biodiversity. In the face of massive governmental effectiveness in certain efforts such as enforcement of the logging ban, reforestation projects and governmental creation and enforcement of parks, the most major gap identified is the development of in-region capacity to complement these efforts.

The table below summarizes the strategic funding directions for CEPF in the Mountains of Southwest China hotspot.

CEPF Strategic Directions	CEPF Investment Priorities
<p>1. Develop and operationalize hotspot-wide monitoring and evaluation projects.</p>	<p>1. 1 Define five- and 10-year map-based conservation outcomes for the hotspot through a collaborative, participatory approach.</p> <p>1. 2 Support projects that utilize scientific tools to evaluate changes in land cover, spatial relationships and ecosystem health.</p> <p>1. 3 Establish a mechanism to monitor and evaluate the effectiveness of the site-specific projects and ensure adaptive management and sharing of lessons learned.</p> <p>1. 4 Provide resources to track human-induced environmental trends and high-resolution monitoring to report on site-specific impacts.</p> <p>1. 5 Scientific research and socioeconomic analysis to better understand biodiversity and conservation issues and threats in the region</p> <p>1. 6 Improving the credibility and scientific methodology used for biodiversity conservation research in this hotspot.</p>
<p>2. Support site-related projects led by civil society to mitigate key threats to natural areas and species populations.</p>	<p>2. 1 Effective nature reserve and community resource management</p> <p>2. 2 Ecotourism and environmental education as a tool to support biodiversity conservation</p> <p>2. 3 Ecosystem restoration, especially filling in the gaps in existing governmental programs</p> <p>2. 4 Projects to reduce illegal and other unsustainable wild animals and plants trade</p> <p>2. 5 Promoting biodiversity friendly “green” production or harvest of traditional Chinese medicines</p>
<p>3. Build capacity of civil society to implement conservation efforts at a site and regional level.</p>	<p>3. 1 Assess, develop and implement a series of training programs based on the training needs in the region. Training could focus on a number of topics including reserve management, the fundamentals of green businesses, business management for conservation and environmental education.</p> <p>3. 2 Provide resources for individuals in the region to participate in training opportunities.</p> <p>3. 3 Establish a trainers’ training program in the region to multiply transfer of skills and knowledge to conservation professionals in the region.</p>
<p>4. Integrate biodiversity conservation concerns and benefits into the implementation of policies and programs at local, regional and national levels.</p>	<p>4. 1 Demonstrate best-case innovative approaches for integrating biodiversity concerns into local, regional and national development programs.</p> <p>4. 2 Collect and disseminate information about biodiversity and socioeconomic benefits of conservation to improve implementation of existing government initiatives and influence national policies.</p> <p>4. 3 Communicate successful examples of innovative approaches to public-private efforts to better integrate biodiversity conservation into governmental efforts.</p>
<p>5. Develop and operationalize a small grants program focusing on conservation capacity-building and research projects.</p>	<p>5. 1 Provide funding to individuals and institutions for research analysis or small-scale activities that will help build the conservation capacity of civil society and/or yield measurable mitigation of threats.</p> <p>5. 2 Provide technical support to trainees to enable better design and implementation of small on-the-ground projects.</p>

Develop and operationalize hotspot-wide monitoring and evaluation projects

CEPF will support a multistakeholder effort to develop, agree and map five- and 10-year conservation outcomes for this hotspot. Agreement on key conservation outcomes and locations would provide additional guidance for CEPF activities and priorities. Results from this process may be used to revise the ecosystem profile. As indicated in the priority setting process, results from this mapping process may indicate the need to prioritize investment within or for the development of specific corridors within the hotspot. Should this process and additional scientific research indicate that corridor development should become a priority, CEPF may re-examine investment priorities. Once this effort has been accomplished, CEPF will support monitoring and evaluation projects that track achievement of the desired outcomes, track long-term biodiversity health of the region and evaluate the managerial and operational effectiveness of conservation projects in the region. Toward this end, CEPF will support projects that evaluate changes in land cover, spatial relationships and long-term monitoring of trends effecting biodiversity and ecosystem health. In addition, CEPF will support projects that evaluate the effectiveness of conservation interventions, with the aim of encouraging adaptive management, sharing of lessons learned and improving threat mitigation. CEPF also will support research that will fill in gaps in knowledge of socioeconomic factors impacting biodiversity conservation in Southwest China, as well as other conservation-related research that helps improve the methodologies and credibility of scientific research in this region.

Support site-specific projects led by civil society to mitigate key threats to natural areas and species populations

Ultimately, conservation in China will be achieved through projects that mitigate key threats affecting forest/habitat loss and viability of species populations. A number of civil society organizations in Southwest China are implementing successful portfolios of projects focused on regional planning, sustainable economic development, environmental education and research.

CEPF will support activities and projects that will ensure sound management of nature reserves and opportunities for more effective community resource management. CEPF will also support efforts to use ecotourism as an alternative source of revenue for local populations as a way to improve livelihood while increasing the value of green space and biodiversity. CEPF will provide resources for projects that will demonstrate how biodiversity concerns can be integrated into ecosystem restoration efforts, filling in the gaps in government restoration projects. Illegal and unsustainable wildlife trade is a key issue in the southwest region of China, both from a supplying and consuming perspective. CEPF will support efforts to stop illegal trade, keep harvest of nontimber forest products at sustainable levels and promote environmentally friendly sources for traditional Chinese medicine.

Build capacity of civil society to implement conservation efforts at a site and regional level

Historically, civil society efforts in conservation in China have not been well developed or supported. However, new organizations in China are making significant progress towards mobilizing civil society involvement and participation in conservation. Nevertheless, civil society still lacks sufficient access to information, training and opportunities to implement on-

the-ground conservation projects. To address this gap, CEPF will support projects to assess and address training gaps in the region. The CEPF training effort will identify and support conservation-minded individuals in the region and provide them with access to information, training opportunities and skills that will help them anticipate, respond to and mitigate threats to biodiversity. These interventions might include on-the-ground projects, creation or modification of policies or interjection of biodiversity concerns into the implementation of existing policies.

To this end, CEPF will support the development and implementation of training programs focused on better reserve management, the fundamentals of green business, environmental education and management of collective natural resources. CEPF-funded training will favor projects that operate through train-the-trainer methodologies, ensuring that skills are shared and spread throughout the region.

Integrate biodiversity conservation concerns and benefits into the implementation of policies and programs at local, regional and national levels

Current government investment in this region managed by the State Forestry Administration, through multi billion-dollar programs, such as the National Forest Protection Program, Grain to Green and The National Endangered Plant and Wildlife Protection and Nature Reserve Program present perhaps the best opportunities to protect ecosystems and landscapes. However, conservation gaps remain unfilled through these programs and their implementation. CEPF will support projects that integrate biodiversity concerns into these large-scale efforts via demonstrating how conservation measures can add value to the implementation of policies at the local, regional and national level. For example, CEPF might support a project that broadens a tree plantation program into a program of forest or even ecosystem restoration. CEPF will further support efforts to communicate these success stories to a broader audience.

Develop and operationalize a small grants program focusing on conservation capacity-building and research projects

Small-scale efforts are the building blocks to successful conservation. CEPF will provide resources for a small-grants program in this region. Funds will be directed toward small-scale activities focused on capacity-building and scientific research projects. An institution in the region would manage the program. Guided by CEPF Asia grant director, this institution would be responsible for defining the specific criteria and parameters to operationalize the small grants program.

SUSTAINABILITY

CEPF funding in the hotspot will achieve sustainability through two major avenues. The first will be to essentially build upon or “piggyback” on larger, existing investments by ensuring that biodiversity concerns are incorporated in to the massive programs and projects supported by the Chinese government and large-scale multinational and international funders. Secondly, and perhaps most importantly, CEPF’s investment in this hotspot will be sustained through the increased capacity of China’s emerging conservation leaders.

In addition to dealing directly with the threats in this region, the ultimate goal of CEPF funding is to provide training opportunities and develop a core group of committed and well-trained conservationists. These individuals will play leadership roles within their own posts and have the ability to respond to new and emerging threats to biodiversity in the region. This group will serve as CEPF's legacy in the region and will remain active after the five-year CEPF funding period. If successful and maintained, monitoring and evaluation mechanisms put in place will enable long-term conservation benefits in the region as well.

CONCLUSION

Because of rapidly changing threats, and limited time and funds (in the context of China's size and history), the CEPF investment strategy will focus on increasing the capacity of emerging conservation leaders in the Mountains of Southwest China hotspot to preserve this region's biodiversity. CEPF funding in this region will seek to complement existing government investments, which will leverage the greatest potential return on investment.

CEPF will fund applied projects directed toward mitigating specific threats in the region. These projects will provide the best opportunity for civil society to learn from hands-on experience, while at the same time reducing the impact of the particular threat. CEPF will support projects that encourage integration of biodiversity conservation into implementation of policies at the regional and national level. A monitoring and evaluation component will provide performance feedback, but, more importantly, a tool by which conservation progress can be measured well beyond CEPF's five-year investment.