CRITICAL ECOSYSTEM PARTNERSHIP FUND

Ecosystem Profile Technical Summary

Tropical Andes Biodiversity Hotspot

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1. INTRODUCTION

The Tropical Andes Hotspot comprises the Andes Mountains of Venezuela, Colombia, Ecuador, Peru, Bolivia, and the northern tropical portions within Argentina and Chile. It covers 158.3 million hectares, an area three times the size of Spain. It is one of 35 global biodiversity hotspots, defined as those regions that have at least 1,500 endemic plant species and that have lost more than 70 percent of their natural habitat. These 35 hotspots cover only 2.3 percent of the Earth's surface but contain a disproportionately high number of species, many of which are threatened with extinction. Given their strategic importance, hotspots serve as global priorities for conservation.

The Critical Ecosystem Partnership Fund (CEPF) was established to provide grants to nongovernmental and private sector organizations, communities and individuals so they can conserve critical ecosystems in biodiversity hotspots. The investments are even more meaningful because many hotspots are home to millions of people who are impoverished and highly dependent on natural resources. CEPF empowers people to be good stewards of the planet, so they and future generations continue to benefit from its life-sustaining resources, such as biodiversity, clean air, fresh water, a stable climate and healthy soils.

In 2013, the CEPF Donor Council approved a new investment phase for the Tropical Andes Hotspot. Before launching the new investment phase, CEPF commissioned the preparation of an ecosystem profile to assess the current state of the hotspot, to identify conservation priorities, and to develop an investment strategy to guide grant making.

CEPF Investment in the Tropical Andes, 2001 - 2013

The current ecosystem profile builds on the results achieved and lessons learned from CEPF's previous investments in the Tropical Andes, which spanned two periods, from 2001 to 2006 and from 2009 to 2013. During the first investment period, CEPF's support to the hotspot totaled $6.13 million, and targeted the Vilcabamba-Amboró conservation corridor of southern Peru and northern Bolivia. The 30-million-hectare swath of forested landscapes covers almost 20 percent of the hotspot area, and conservation action there was still largely nascent at the time. CEPF selected the corridor due to the large extensions of well-preserved forests that presented excellent opportunities for conservation, and the looming threats that put these areas at risk if conservation actions were not taken.

Several seminal achievements resulted from this first phase of CEPF investment:

- More than 4.4 million hectares were brought under legal protection through the declaration of nine new national parks, indigenous reserves, private protected areas, and Brazil nut concessions. Furthermore, 17 protected areas covering nearly 10 million hectares experienced management improvements through a wide range of conservation initiatives.
- CEPF introduced innovative grassroots livelihoods projects compatible with biodiversity conservation, helping indigenous and mestizo communities to generate new sources of income. As one example, CEPF was the first donor to provide significant support to Brazil nut collectors of Madre de Dios, which resulted in the establishment of formal land rights for 130 nut gatherers and the sustainable management of 225,000 hectares of forest vital to landscape connectivity.
- CEPF's binational corridor-level vision led to a more integrated approach to developing

landscape-scale conservation strategies and to increased collaboration between major stakeholders, including government agencies and civil society organizations from Peru and Bolivia. This broader approach represented a departure from earlier conservation initiatives that often were treated in isolation, had weak collaboration, and lacked common goals to integrate protected areas within a larger corridor framework.

- Environmental leaders and institutions developed new capacities to meet the conservation challenges of the region. For example, support to the Sociedad Peruana de Derecho Ambiental (SPDA) resulted in Peru's first private protected areas, which proved so successful that it has been adopted across the country. Since its first CEPF grant, SPDA continues operate in the region. Local environmental and indigenous leaders also emerged and remained at the forefront of efforts to promote the sustainable development of their regions.

The second phase of investment, from 2009-2001, totaled $1.79 million and targeted the smaller Tambopata-Pilón Lajas sub-corridor between Peru and Bolivia. The objective was to support local civil society groups to mitigate the expected impacts from upgrading two dirt roads to highways: the Southern Inter-Oceanic Highway in Peru and the Northern Corridor Highway in Bolivia. While economic opportunities were expected to emerge from the projects, the upgrading also was expected to fuel migration, deforestation, land invasion, hunting and mining. In the course of implementation of the second phase, the sub-corridor experienced a significant rise in illegal mining and deforestation. However, CEPF grantees demonstrated the efficacy of empowering local civil society to advocate for environmental and social sustainability, particularly with respect to infrastructure projects. CEPF investments also helped to lay a foundation to promote conservation and to mitigate negative impacts from these infrastructure projects to help achieve several notable results:

- The core areas of five protected areas covering 4.4 million hectares remained intact, withstanding strong pressure from gold mining, agricultural encroachment, and logging.
- Capacity building of indigenous and mestizo communities and local environmental groups allowed them to proactively engage in road design planning and impact monitoring, and thereby, to successfully advocate for adherence to environmental and social safeguards. Community-based mechanisms developed under CEPF demonstrated the efficacy of working at the community level when dealing with infrastructure projects. Furthermore, agroforestry projects, particularly those involving cacao and Brazil nuts, offered communities living next to the roads opportunities to maintain forest cover and increase their income.
- Support to 11 multi-stakeholder alliances and numerous local civil society groups helped to integrate environmental and social safeguards and conservation goals into eight regional and national policies related to highway and dam development, gold mining, private protected areas, sustainable financing, logging concessions and REDD+.

In both investment phases, CEPF collaborated closely with the Bolivian and Peruvian national environmental trust funds of FONDAM, FUNDESNAP and PUMA, leveraging approximately $2 million in additional funding for CEPF-funded projects.

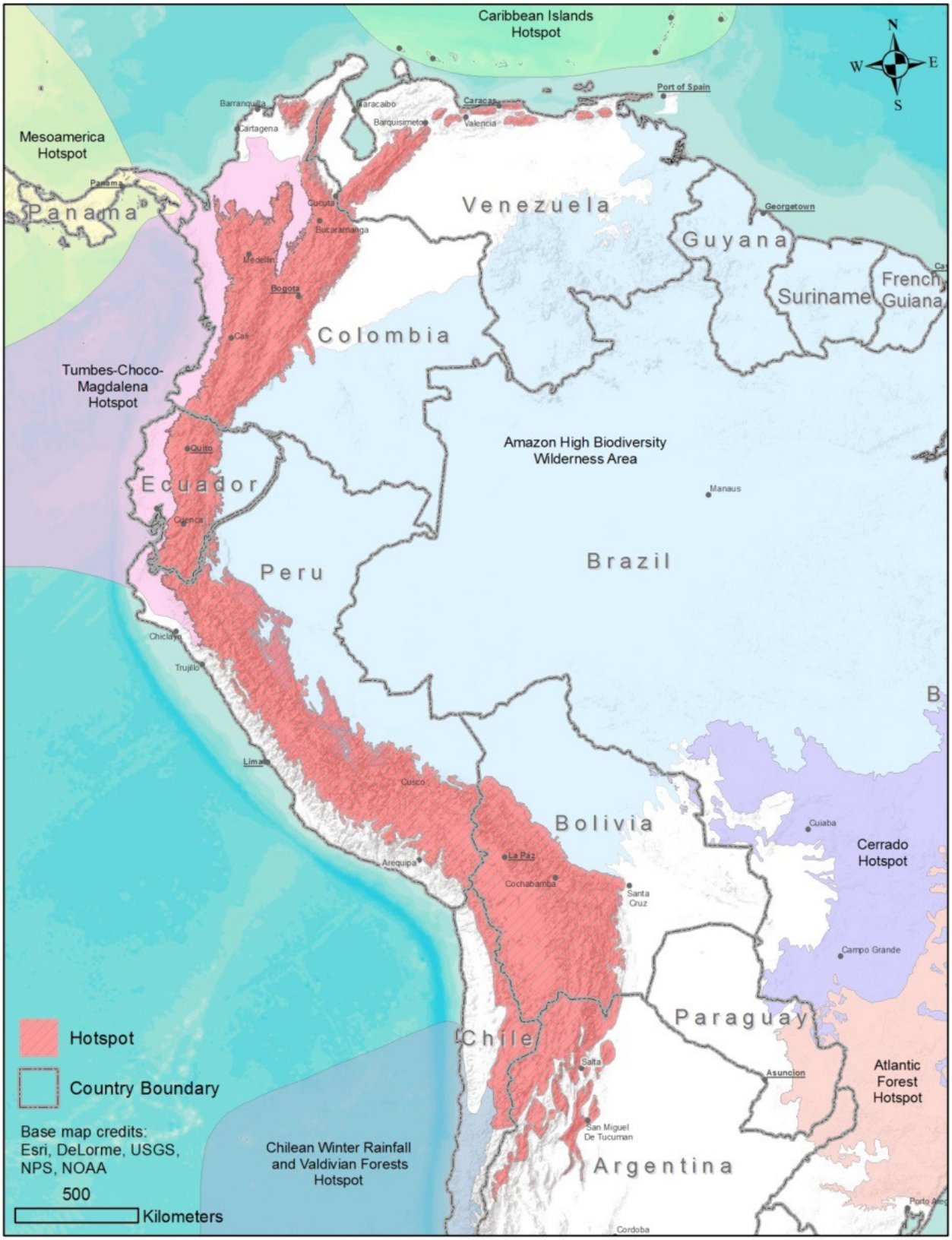
Through CEPF, partners realized many important objectives that put the Vilcabamba-Amboró

corridor on a stronger conservation trajectory. However, several key threats remain and new ones have emerged, posing profound challenges to the future of biodiversity and local communities of the hotspot, as the ecosystem profile describes in more detail. Given the operating milieu, the role of local environmental and social civil society groups remains critical to ensure that future development in the Tropical Andes takes into full consideration the vital role of the hotspot's ecosystem services and biodiversity, as well as the needs and aspirations of indigenous, Afro-descendent, and mestizo communities, which often have not benefitted to the extent possible from the hotspot's rapid economic growth.

CEPF's investments in the Tropical Andes provide a firm foundation and important lessons upon which to launch a new investment phase in the Andes at this time. CEPF's Donor Council therefore directed the CEPF Secretariat to undertake a new ecosystem profiling process, one that would cover the entire hotspot.

This document summarizes and analyzes a wealth of biodiversity and socioeconomic data for a region of immense value for global conservation efforts and human well-being. Although the primary purpose of the ecosystem profile is to provide a strategy for CEPF investment in the Tropical Andes, it also is designed to serve other donors, government agencies, civil society organizations, and private sector groups to help develop their strategies and programs. As the subsequent chapters make clear, the biodiversity value of the Tropical Andes is very high, but so too are the threats. Coordinated efforts among multiple institutions are required to confront the challenges facing the region today.

Figure 1.1. Location of the Tropical Andes Hotspot



2. BACKGROUND

Preparation of the Tropical Andes Hotspot ecosystem profile involved a three-step process that started in September 2013. The profiling team led by NatureServe, with support from EcoDecisión, first compiled and analyzed a wide array of information related to the hotspot's conservation, threats and opportunities. Preliminary analysis resulted in the generation of draft conservation outcomes and contextual socioeconomic and policy data, which then laid the basis for review by Andean stakeholders. The profiling team worked closely with in-country experts to compile the information using data standards that allowed for hotspot-wide analysis.

From December 2013 to February 2014, the profiling team traveled to each of the seven Andean countries to hold workshops and to meet individually with key stakeholders. In total, the profiling team met with more than 200 people. Meeting with former CEPF grantees and partners in the Tropical Andes and Tumbes-Chocó-Magdalena hotspots allowed the profiling team to build on the experiences and lessons from previous CEPF investments. The workshops allowed national experts from diverse backgrounds and perspectives to review the preliminary delineation of the key biodiversity areas (KBAs), identify priority threats and key local stakeholder groups, propose strategies to promote conservation in the KBAs, identify conservation funding mechanisms and existing investments, and analyze capacities and challenges within Andean civil society. The profiling team also met individually with a variety of government representatives, international donors and civil society leaders. Throughout the profiling process, an advisory committee of six internationally respected experts on Andean conservation provided strategic guidance.

The profiling team devoted subsequent months to compiling and analyzing the data, consulting with local experts and stakeholders to verify findings, drafting the profile chapters and preparing maps. The profile was developed in close collaboration with the CEPF Secretariat. A final regional workshop in September 2014 in Quito, Ecuador, validated the findings and conservation outcomes and fine-tuned the CEPF investment strategy. The profile was reviewed by the CEPF Working Group on December 11 and received final approval from the Donor Council on XX with an allocation of XXX.

3. BIOLOGICAL IMPORTANCE OF THE HOTSPOT

The Tropical Andes Hotspot forms the northern and central part of the longest continental mountain chain on Earth. It includes the longest and widest cool region in the tropics, and occupies an enormous latitudinal and elevation range, from 500 meters to more than 6,000 meters. Steep slopes, deep gorges, and wide valleys characterize the entire hotspot. A vast high mountain plain, the altiplano, extends across much of southern Peru and western Bolivia. The hotspot includes the world's largest high-elevation lake, Lake Titicaca.

A complex geological history gives rise to the hotspot's tremendous mineral wealth, which forms the backbone of its economy today. It has many active volcanoes, large ore and salt deposits along with exploitable amounts of hydrocarbons. The southern portion contains some of the largest copper deposits in the world. The dry climate in the southern Altiplano has resulted salt flats that contain the world's largest deposits of lithium. Volcanic activity millions of years ago created the Bolivian tin belt as well as the famous, though now depleted silver deposits of Cerro Rico de Potosí.

Andean Habitats

The Tropical Andes contains a remarkable variety vegetation types resulting from the large altitudinal gradients and climatic variation that are classified into six major ecosystem types, although more detailed classifications identify up to 160 types of ecosystems.

- *Andean páramos* dominated by grasses and shrubs on Northern Andean peaks.
- *Evergreen montane forests* covering wide altitudinal ranges of the western and the eastern slopes of the Andes.
- *Seasonally dry montane forest* and *xerophytic scrub* restricted to the middle and lower portions of the inter-Andean valleys, and major rivers, deep gorges, and valleys.
- *Humid puna* dominated by grasslands found in northern Peru to central Bolivia.
- *Dry puna* dominated by grasslands in the central-southern portion of the hotspot.

In addition to these major ecosystems, the hotspot's location next to South America's other biodiversity hotspots and wilderness areas makes for several important transition zones that further contribute to its high diversity. For example, lower elevations of the hotspot's northwestern sector transitions to lowland wet forest in the Tumbes-Chocó-Magdalena hotspot, one of the wettest places on Earth. Most of its eastern border transitions to the lowland wet forest of the Amazon. The northern edge transitions to Caribbean dry forest, while the southern portion transitions to montane grasslands, steppe and the Atacama Desert, the world's driest desert .

Species Diversity and Endemism

The Tropical Andes Hotspot is the most diverse hotspot in the world, topping the list of 35 hotspots for species richness and endemism. It contains about one-sixth of all plant life in the world, including 30,000 species of vascular plants, making it the top hotspot for plant diversity. It has the largest variety of amphibian, bird and mammal species, and takes second place to the Mesoamerica Hotspot for reptile diversity.

Table 3.1. Species Diversity, Endemism and Global Threat Status in the Tropical Andes Hotspot

Taxonomic Group	Species	Endemic Species	Percent Endemism
Plants	~30,000	~15,000	50.0
Fishes	380	131	34.5
Amphibians	981	673	68.6
Reptiles	610	275	45.1
Birds	1,724	579	33.6
Mammals	570	75	13.2
Total	~34,265	~16,733	~48.8

Importance of Ecosystem Services

The hotspot also is noteworthy for its ecosystems services. The Andes Mountains are South America's water towers, serving as the water source for the main stems of both the Amazon and Orinoco rivers, the world's largest and third largest rivers by discharge. Its rivers provide water for numerous cities, including 10 with populations greater than 500,000 and four of which are national capitals. Andean waters irrigate major agricultural regions of South America and provide a major source of power through hydropower for many of the hotspot's 57 million citizens. Its forests store 5.4 billion tonnes of carbon, equivalent to the annual carbon emissions of 1 billion cars.

4. CONSERVATION OUTCOMES DEFINED FOR THE HOTSPOT

To support effective biodiversity conservation, CEPF defines conservation outcomes for its investments: the species, sites and corridors where conservation action must be focused to minimize extinction. Key biodiversity areas (KBAs) are those sites that support threatened species. Corridors link KBAs, secure needed landscape connectivity, and maintain ecosystem function and services for the long term.

For the Tropical Andes, the definition of conservation outcomes was based on a sequential process of species selection, distribution mapping, and KBA and corridor design following standard methodology from Langhammer *et al*. 2007. Issues of data availability limited the outcome definition process in several respects. Most notably, only mammals, birds and amphibians have been comprehensively assessed for their global threat status for IUCN Red Listing. Some reptiles, fish and plants have been assessed but many large gaps remain.

Species Outcomes

The ecosystem profile identified 814 globally threatened species for the Tropical Andes, presented in Table 4.1. This is the highest number of any hotspot, but still a substantial underestimate of the true number due to the data limitations explained above. Another 1,314 species occur in ranges so small as to be highly susceptible to rapid population declines.

Table 4.1. Summary of Threatened and Restricted Range Species in the Tropical Andes Hotspot

Taxonomic Group	Critically Endangered	Endangered	Vulnerable	Total	Restricted Range
Plants [1]	0	0	0	0	324
Fish [1]	2	0	5	7	--
Amphibians	133	207	163	503	567
Reptiles [1]	2	5	12	19	38
Birds	18	75	110	203	257
Mammals	10	18	54	82	127
Total	**165**	**305**	**344**	**814**	**1,313**
Percentage	*20*	*37*	*42*	*100*	--

[1] The IUCN has not yet comprehensively assessed fish, reptiles or plants in the Tropical Andes Hotspot.

Overall, the list of globally threatened species is dominated by amphibians, although the list also has such well-known species as spectacled bear, mountain tapir and yellow-tailed woolly monkey. Most species are threatened by habitat loss, suggesting that preventing the drivers of deforestation where these species occur is important conservation strategy. The narrow distributions of many threatened species fall outside of existing protected areas. Addressing the decline of amphibians must focus on the devastating impact of the Chytrid fungus in addition to habitat loss.

Site Outcomes

The Tropical Andes Hotspot has a total of 429 confirmed KBAs, which include 337 Important Bird Areas (IBAs), 116 Alliance for Zero Extinction (AZE) sites, and six new KBAs. Thirteen

sites are still candidates for KBA status pending final validation. The KBAs cover 33.2 million hectares, or about one-fifth of the hotspot, an area slightly smaller than the size of Paraguay. KBAs have an average size of 94,270 hectares, but are as small as 120 hectares and as large as 1.5 million hectares. Only the Indo-Burma Hotspot has more KBAs with 509 sites.

Table 4.2. Summary of Site Outcomes for the Tropical Andes Hotspot

	Hotspot Area (ha)	KBA Area (ha)	Number of KBAs[1]	Percent of Country's Hotspot Area Covered by KBAs
Argentina	14,872,815	2,020,943	65	14%
Bolivia	37,000,926	8,480,276	43	23%
Chile	7,384,213	611,104	11	8%
Colombia	35,029,005	6,489,194	121	19%
Ecuador	11,786,728	4,093,960	79	35%
Peru	45,326,993	9,008,359	96	20%
Venezuela	6,952,335	2,545,570	27	37%
Total	**158,353,016**	**33,249,405**	**442**	**21%**

[1] Includes 13 candidate KBAs.

The profile finds 92 KBAs have high relative biodiversity value based on a scored index from 0 to 1, where those sites designated as having a high biodiversity value score 0.4 and above. Given the hotspot's high level of biodiversity, these top 92 KBAs are of outstanding global value. For example, the international journal *Science* reports that Colombia's Sierra Nevada de Santa Marta Natural National Park is the single most important protected area in the world for threatened species, based on an analysis of 173,000 protected areas. The analysis found that the isolated mountain range is home to over 40 endemic species, many of which are threatened with extinction. For context, Figure 4.1 shows a map of relative biodiversity value throughout the hotspot, with an inset showing the 92 high-biodiversity KBAs.

Venezuela

Three of Venezuela's 27 KBAs have high relative biodiversity value, each of which is a national park. Their protection status provides some assurance against major deforestation, but their proximity to Caracas and other population centers is a fragmentation risk. The KBAs are critical for protecting the water source for the country's Caribbean cities, including the capital Caracas.

Colombia

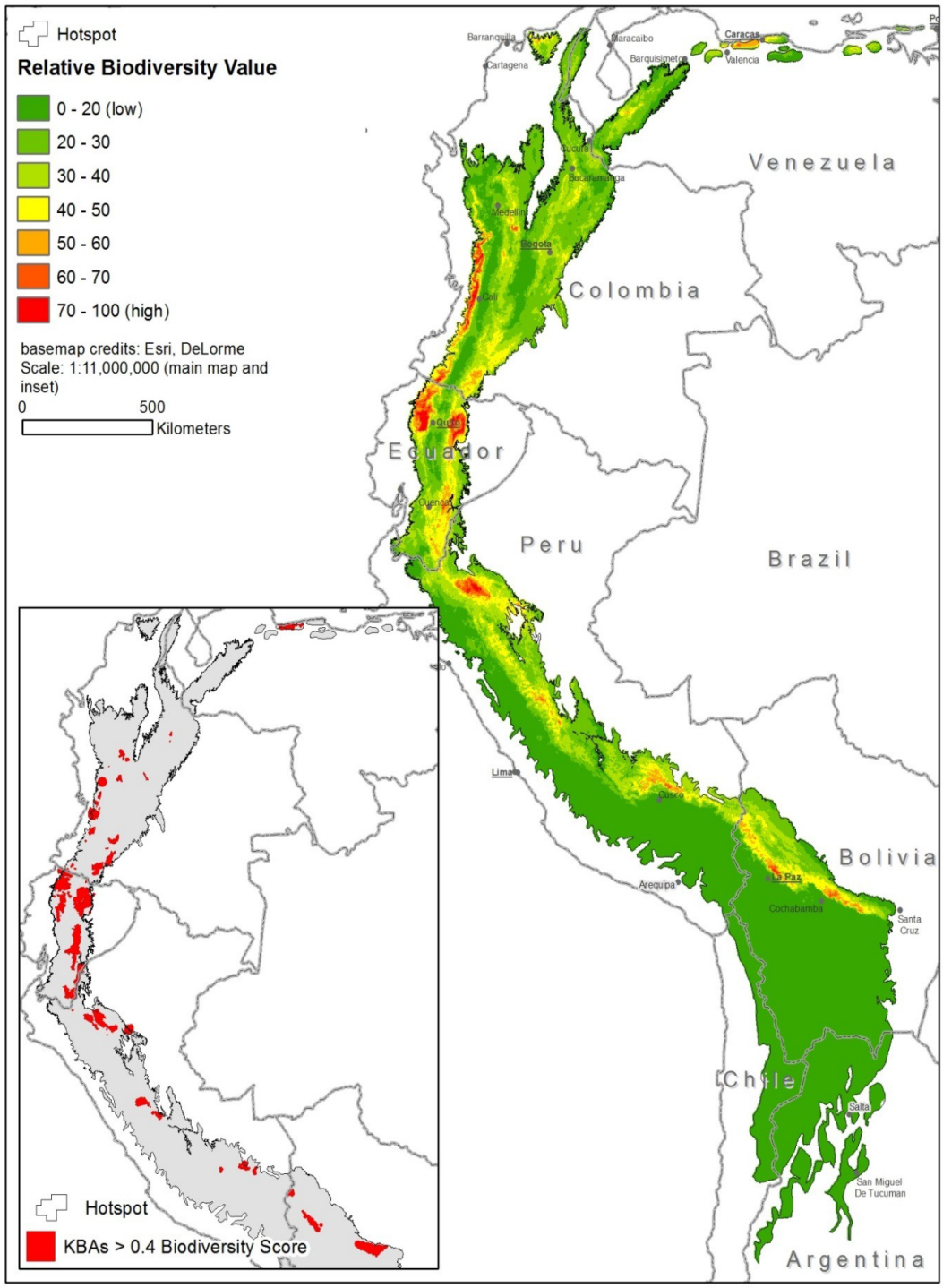
With 121 KBAs, Colombia has more KBAs than any other Andean country, with 31 sites of high relative biodiversity value. Several KBAs on the Pacific slope contain forests that transition to the Tumbes-Chocó-Magdalena Hotspot, while several eastern slope KBAs contain forest that transition into the Amazon. Many KBAs are inhabited by indigenous communities and Afro-descendant communities. Several KBAs are particularly important for the provision of water services to major cities, including Bogota, Cali and Medellin, as well as for water supply for agriculture and hydroelectric dams.

Ecuador

Despite its relative small size, Ecuador has 79 KBAs, which cover 35 percent of the portion of the

hotspot in the country. Twenty-eight KBAs have high biodiversity values. Like Colombia, Ecuador's Pacific and eastern KBAs transition to the Tumbes-Chocó-Magdalena Hotspot and Amazon Wilderness Area. Many KBAs are inhabited by indigenous communities. They provide water to all the major cities in Ecuador, including Quito, Guayaquil and Cuenca, and are the water source for major agricultural regions and hydroelectric dams.

Figure 4.1. Relative Biodiversity Value in the Tropical Andes Hotspot



Peru
Peru occupies the largest share of the hotspot at 29 percent of the land area and has the second highest number of KBAs at 96 sites. Machu Picchu is located in a high-biodiversity KBAs. The Huancabamba Depression, the lowest pass of the Andes Mountains, is a major barrier that isolates many high-elevation species from the north or south while providing hotspot-level connectivity of the dry valleys. Peru's KBAs are concentrated on the eastern flank of the Andes, bordering the Amazon. Fewer KBAs are located on the dry Pacific flank or in inter-Andean valleys. Because of Peru's coastal dry climate, water provision from the Andean KBAs, including for the capital Lima, is a critical ecosystem service.

Bolivia
Bolivia has 43 KBAs, 10 of which have high relative biodiversity value that are found on the eastern slope. A few KBAs are located on the altiplano. Several candidate KBAs host highly endemic amphibian and fish species specialized to the extreme conditions of saline lakes and flats.

Argentina
The southernmost portions of humid montane forests and puna grasslands reach into Argentina. Although Argentina has a diversity of habitats, none of the country's 64 KBAs has the number of threatened species or level of irreplaceability to rank as having high relative biodiversity value. Their low biodiversity values reflect the large ranges and low threat status of species there.

Chile
Chile's 11 KBAs are situated entirely on the semi-desert altiplano. Its KBAs are small in area, some protected through national parks, reserves and monuments. Although several endemic species occur in the sites, none have a high values for irreplaceability of threatened species

Legal Protection of KBAs

Andean governments, local communities, international donors and conservationists have invested tremendous effort over the decades to establish new protected areas in the hotspot. Their efforts have paid off handsomely in several respects. The profile identifies 572 protected areas with sites that have international, national or subnational designation specifically for biodiversity conservation and natural resources management. These sites cover 28.2 million hectares, or 18 percent of the hotspot's land area, an area nearly the size of Italy.

The protection status of the hotspot's KBAs is more of a mixed picture. About 59 percent of the area falling within the borders of a KBA overlaps with land designated as protected, leaving 41 percent unprotected. Of the Tropical Andes' 442 KBAs, 205 sites have at least 10 percent of their land area under some form of protection. The remaining 237 KBAs, which cover almost 10 million hectares, an area the size of Cuba, are not protected.

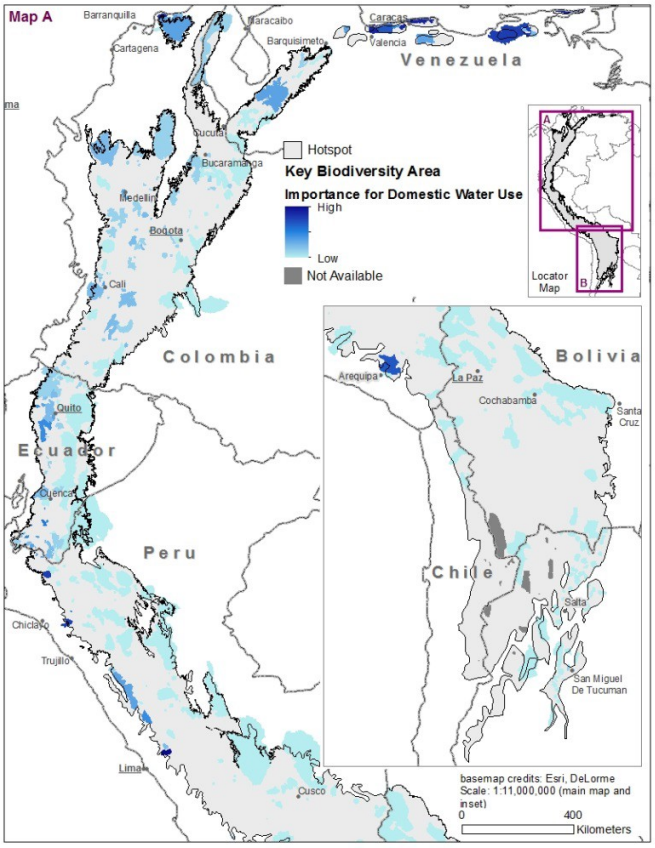
Ecosystem Services of the KBAs

Andean KBAs contribute vital ecosystem services for human populations at multiple levels, providing clean water to small Andean hamlets and to major cities and agricultural lands. At the same time, they store carbon in vast tropical forests to help regulate global carbon budgets. Of particular note are the KBAs' ecosystem services for water provision for domestic and agricultural use and carbon storage.

Water Provision

The KBAs of highest importance for providing the greatest amount of high-quality water for domestic consumption and agriculture are located along northern and western slopes of the Andes Mountains. Locally important KBAs for both domestic and agriculture use, particularly for medium-sized cities, are located in the inter-Andean valley. Lower ranking KBAs are located along the eastern Andean-Amazonian slope, particularly in the south. For water provision for domestic use, only 50 KBAs out of the 429 sites assessed received a high or medium ranking. For agricultural use, 60 KBAs received a high or medium ranking.

Figure 4.2. Provisioning by KBAs of Water for Domestic Use in the Tropical Andes Hotspot



Carbon Storage

The KBAs of the Tropical Andes collectively store more than 5.4 billion tonnes of carbon, which is equivalent to the amount of carbon emitted by 1 billion cars in one year. The amount of carbon stored in each KBA varies substantially depending on its vegetation, with KBAs dominated by highland páramos, puna grasslands or shrubs having less standing carbon biomass per unit area than KBAs dominated by high canopy forests. The KBAs with the highest mean carbon storage are in Bolivia and Peru, and those with the lowest carbon storage are in Chile and Argentina. Peru's KBAs store the most carbon of all Andean countries, reflecting the large extensions of its KBAs, followed by Colombia and then Bolivia.

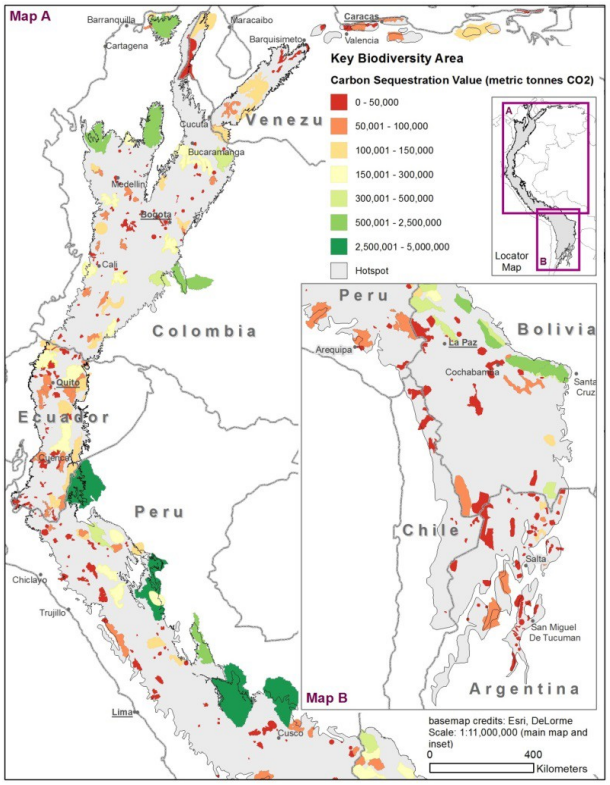
Table 4.4. Estimated Carbon Storage in KBAs of the Tropical Andes Hotspot

Country	KBA Area (ha)	Average Carbon Stored in KBAs (tonnes/ha)	Total Carbon Stored in KBAs (tonnes)	Percent of Total Carbon Stored in Hotspot KBAs
Argentina	2,020,943	33.66	68,018,313	1
Bolivia	8,480,276	119.29	1,011,653,677	19
Chile	611,104	12.27	7,500,373	0.1
Colombia	6,489,194	204.98	1,330,131,625	25
Ecuador	4,093,960	205.50	841,288,720	16
Peru	9,008,359	214.40	1,931,413,790	36
Venezuela	2,545,570	93.30	237,511,583	4
Hotspot total	33,249,406	163.2	5,427,518,081	100

Source: Saatchi *et al*. 2011

In the context of REDD+ funding mechanisms, reduced deforestation is a more important measure for carbon ecosystem services than total carbon. Against this measure, higher valued KBAs are located on the east slope of the Andes, particularly in northern Colombia and Venezuela.

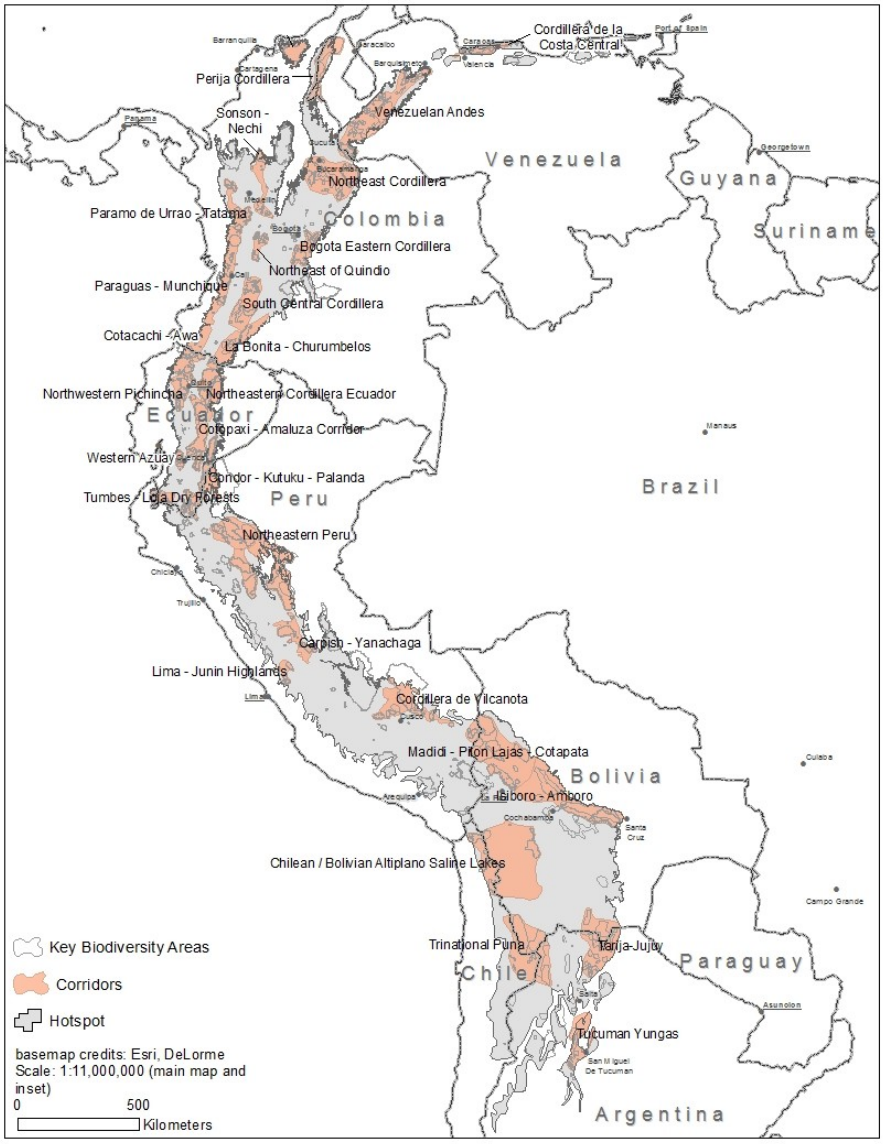
Figure 4.3. Estimated Carbon Sequestration in KBAs in the Tropical Andes Hotspot



Corridor Outcomes

The ecosystem profile delineates 29 corridors that are designed to accomplish three objectives: provide connectivity between KBAs with similar species, species irreplaceability and habitats; group KBAs in accordance to their ecosystem services to the same population centers; and support the needs of wide-ranging landscape species. Because much of the hotspot has been transformed into urban and agricultural landscapes, delineation of the corridors largely follows the mountain ranges and KBAs along their eastern and western slopes. The 29 corridors cover 55.7 million hectares, equivalent to 35 percent of the hotspot. Of the 442 KBAs in the hotspot, 303 KBAs are included in a corridor. There are 22 corridors that are restricted to a single country, seven are binational, and one is trinational (Figure 4.4).

Figure 4.4. Corridors Identified for the Tropical Andes Hotspot



5. SOCIOECONOMIC CONTEXT OF THE HOTSPOT

The ecosystem profile estimates that about 57.5 million people live in the Tropical Andes, with many millions more located outside the hotspot dependent on its environmental services. Colombians comprise 53 percent of all the people living in the hotspot. Nearly two-thirds of all Colombians (30.4 million people) and more than half of all Bolivians (5.5 million) reside in the hotspot, as do approximately one-third of both Ecuadorians (6.1 million) and Peruvians (9.3 million). Fourteen percent of Venezuelans (4.3 million), 3 percent of Argentinians (1.7 million) and 0.3 percent of Chileans (200,000) live within its boundaries.

The Andes is characterized by high cultural diversity. Predominantly populated by Spanish-speaking *mestizos,* more than 40 indigenous groups that descend from one of the world's six independent civilizations are found in the Andes. Descendants of African slaves also contribute to its multi-ethnic composition. Bolivia has the highest percent of indigenous people (62 percent of its population), while 40 percent of Ecuador's and Peru's are of indigenous descent. Lands owned or reserved for indigenous peoples total over 82 million hectares, which represents over 52 percent of the hotspot's land area.

In recent decades, all Andean countries have experienced a marked trend of rural to urban migration, and to a lesser extent, rural to rural migration. As a result, urban dwellers comprise 72 percent of the hotspot's population, with the remaining 28 percent living in rural areas. The hotspot hosts 32 important cities, including the capitals of Caracas, Bogotá, Quito and La Paz. Major cities outside of the hotspot, such as Lima and Santa Cruz, are completely dependent on water emanating from within the hotspot to supply their large populations.

Across the Andes, great disparities in wealth and human well-being exist. According to the Andean Community, a regional customs union, efforts to reduce poverty have been successful but overall poverty rates remain more than 30 percent for the general population and more than 60 percent in the rural areas. In all hotspot countries, poverty reduction has resulted in an increase in the middle class. The World Bank indicates that Argentina and Chile have increased their middle class population faster than Bolivia, Colombia, Ecuador and Peru.

National poverty rates vary within the hotspot, with the highest rate in Bolivia (36 percent) and the lowest in Chile (11 percent). Other hotspot countries have poverty rates between 23 and 33 percent. The percent of the population living in conditions of extreme poverty, defined as having an average daily consumption below $1.25, ranges from 3 percent in Chile to 19 percent in Bolivia. In rural areas, especially in remote areas where KBAs typically are located, poverty and inequality are more extreme. People living in such areas often have limited or no access to basic services and long distances to markets, secondary schools and health clinics.

Civil conflict, crime, and insecurity caused by illicit crops and drug trafficking have plagued some parts of the hotspot for decades, significantly hindering conservation efforts. Colombia has been particularly hard-hit, and as of 2010, it had over 3 million displaced people officially registered, which is one the highest rates in the world. At the time of the profiling process, peace negotiations between the government and insurgency holds out hope for dramatic change in the country. A successful peace negotiation could open the doors to a revitalized civil society, better environmental governance and increased opportunities for research and management in areas long

affected by violence.

Economic Trends

Economic data from 2013 show that Bolivia had the highest income growth (6.4 percent), followed by Peru (5.2 percent), with Venezuela lagging (1.2 percent). Today, Chile, Peru and Colombia are considered as being friendly to international investors. Foreign investors are more reluctant to invest in Venezuela, Argentina, Bolivia and Ecuador, either due to their protectionist policies, uncertain economic climate, or smaller size. With the precipitous fall in oil prices and other commodities in late 2014, robust economic growth rates are expected to decrease in 2015.

Until 40 to 50 years ago, all Andean countries had predominantly natural resource-based economies based on agriculture, forestry, and fisheries, which continue to be important today. All Andean countries experienced great economic growth in the 1990s with a pronounced shift to exports of non-renewable resources, which have caused concerns due to their social and environmental impacts.

Agriculture and Forestry

Agriculture continues to be a major economic component in all countries, both in terms of employment and contribution to GDP. Agriculture (including livestock and forestry) makes its greatest contribution to GDP in Bolivia (12.3 percent) followed by Ecuador (9.4 percent) and Argentina (9.0 percent). In most countries, exploitation of natural forests is economically important and has large social and environmental impacts, but most of the remaining natural forests with commercially valuable timber species occur in the Amazon and Chocó. For this reason, most large commercial logging operations work outside of the Andes Hotspot.

Extractive Industries

Non-renewable extractive activities, particularly of hydrocarbons (*i.e.* coal, crude oil and natural gas) and mining are important to all of hotspot countries. Venezuela remains highly dependent on oil, which accounts for about 95 percent of its export earnings. Ecuador's petroleum resources account for more than half of its earnings. Bolivia's economy is driven by high prices for natural gas and minerals. Bolivia has the second largest natural gas field in the world, located outside the hotspot, although gas reserves in the hotspot that could threaten several KBAs.

Mining for metals is viewed as having enormous growth potential. Chile and Peru are the world's first and second largest producers of copper, respectively. Peru is the third largest producer of silver and sixth largest producer of gold. All Andean countries have significant gold reserves. The explosive growth of gold mining has grown to out-of-control proportions and is now characterized by large numbers of illegal or informal small-scale miners who have attracted international attention due to the rampant pollution, deforestation and social conflict the sector has caused.

Tourism

In most countries, tourism growth was greater than the average global growth rate of 4 percent between 2011 and 2012, with some countries experiencing double-digit growth of international arrivals. Increased security helped attract tourist to Peru and Colombia. Virtually all Andean countries have great scaling-up potential for ecotourism. In Bolivia, ecotourism is still nascent. In

Colombia, ecotourism and “coffee tourism” are on the rise. Ecuador is diversifying its repertoire beyond the Galapagos. Peru’s tourism within the hotspot is built around Incan ruins and ecotourism associated with protected areas and extreme outdoor sports.

6. POLICY CONTEXT OF THE HOTSPOT

Current governments in the hotspot represent a diverse spectrum of political and economic systems and visions. Venezuela, Ecuador, Bolivia and Argentina have focused on increasing state control in key economic sectors, while Colombia, Peru and Chile have emphasized private investment and a market economy. Despite the political diversity of the region's democratically elected governments, all share a marked emphasis on export commodities as an engine for economic development. The strength of the commodity sector has played an important role in expanding public budgets and increasing services.

Protected Areas Management, Indigenous Territories and Decentralization

All Andean countries have made important strides in establishing and consolidating their national protected areas systems in the last decades. Each country has established legal underpinnings and management mechanisms for its national protected areas. In Colombia, Ecuador and Peru, protected area systems integrate management across jurisdictional levels to link national and regional areas. Throughout the hotspot, mechanisms have been developed to incorporate participation by communities and civil society. In several countries, mechanisms for joint management with indigenous communities exist where protected areas overlap ancestral lands. Legal demarcation and recognition of indigenous territories has been an area of notable progress. Lands owned or reserved for indigenous peoples total more than 82 million hectares, which is 52% of the hotspot's land area, and increased nearly 40 percent between 2000 and 2008.

Andean governments have undergone a process of decentralization in recent decades, formally transferring responsibilities and powers for environmental management to regional and local governments. Colombia and Bolivia stand out as early movers of decentralization. Although the speed and nature of this process have varied among the countries, subnational governments *(i.e.,* states, provinces, departments or municipalities) have demonstrated growing capability and interest in territorial planning and environmental management. Decentralization throughout the hotspot provides ample space and significant need for building and influencing policy and planning frameworks. Subnational governments in many cases still have institutional and technical weaknesses to carry out conservation policies effectively; hence work at this level for civil society is an important niche.

While all national protected area systems are grounded in national constitutions or laws, protected areas across the hotspot remain legally vulnerable to development pressures. Although significant progress has been made, many protected areas still have unresolved tenure overlaps and inholdings, as well as incomplete boundary demarcation, making them vulnerable to threats.

Development Strategies and Infrastructure

All hotspot countries have national development plans emphasizing poverty reduction and economic growth to orient their policies. While the environment is referenced in national development plans and strategies, truly integrating environmental sustainability with other development priorities remains a challenge.

From a regional integration perspective, infrastructure connectivity within and between countries is still significantly deficient. According to the Inter-American Development Bank, hotspot countries invest an estimated of $125 billion per year from private and public sources in infrastructure

development. Investment from multilateral donors operating in the region (Inter- American Development Bank, World Bank and Latin American Development Bank) represented 12 percent of the total infrastructure expenditures in 2010.

The South American Regional Integration Initiative (IIRSA), a large-scale infrastructure development initiative throughout South America, has been a point of concern from an environmental perspective due to its continental-wide impacts (see Figure 6.1). IIRSA is a blueprint to meet regional infrastructure development needs agreed to by governments with the support from a variety of regional donors. It aims to bring about transportation (*i.e.,* roads, ports, hydrovias, and airports), energy (*i.e.,* hydropower and electricity), and telecommunications integration.

Figure 6.1. IIRSA Investment Hubs in South America

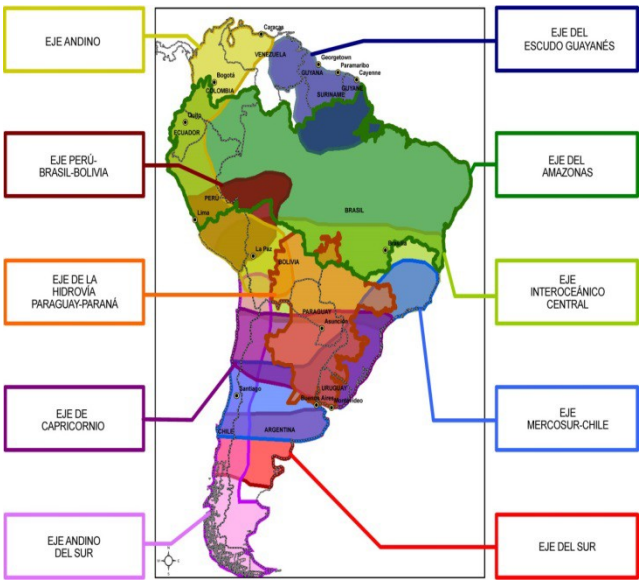


Table 6.1. IIRSA 2013 Portfolios in Investment Hubs that Impact the Tropical Andes Hotspot

Hub	Number of Projects*	Estimated Investment (US$ Billions)
Andean	12	3.694
Amazonian	27	3.475
Central Interoceanic	7	0.460
Peru-Brazil-Bolivia	1	0.085
Capricorn	18	4.233
Total	**65**	**11.947**

Five IIRSA strategic hubs overlap extensively with the Tropical Andes Hotspot (Table 6.1). These hubs contain 65 large projects with a budgeted of $11.9 billion, focusing mostly on road construction, rehabilitation and improvement. Several of these roads are sited in or near a KBA or corridor. Concerns also arise in relation to the construction and improvement of marine and river ports, airports, and border infrastructure.

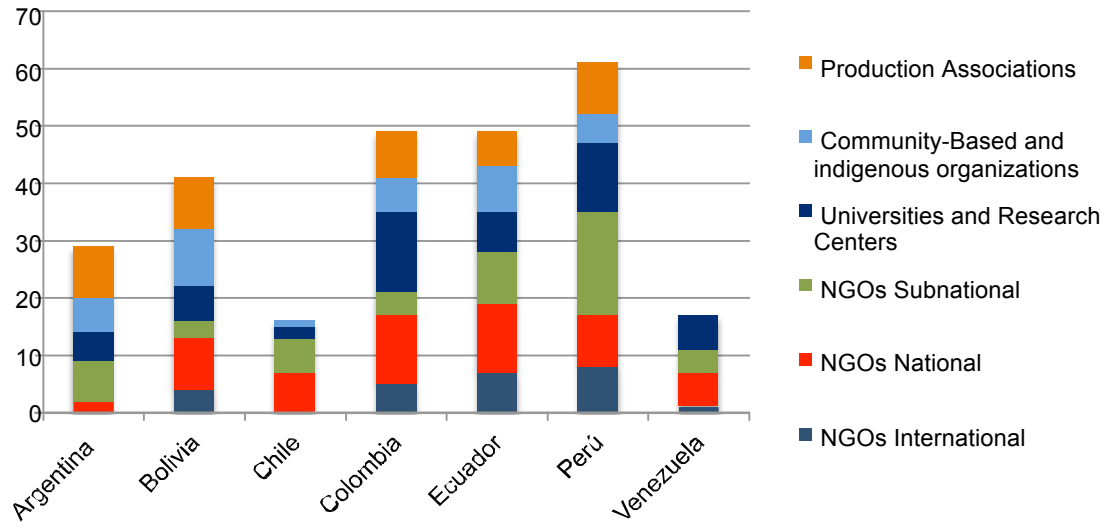
Beyond IIRSA, there has been an upsurge in lending for infrastructure development and resource extraction projects from China and Brazil. From 2005 to 2013, direct investment and lending by China in five Andean countries was greater than any single multilateral donor, with $99.5 billion going to infrastructure, mining and hydrocarbon investments. In Peru, Brazil is supporting a controversial set of 15 large-scale hydropower projects under a bilateral agreement.

7. CIVIL SOCIETY CONTEXT OF THE HOTSPOT

Andean civil society has been at the forefront of biodiversity conservation for decades, championing many successful conservation and sustainable development projects across the hotspot. They have helped to make the Tropical Andes Hotspot an engine for innovation, having launched the first debt-for-nature swap in Bolivia, for example. Today, Andean NGOs remain innovators in such fields as REDD+, payments for ecosystem services, and participatory mechanisms for protected areas management.

The ecosystem profile identifies 262 civil society organizations and networks engaged in a variety of environmental, rural development, agriculture and indigenous rights fields (see Figure 7.1). Of these organizations, 133 groups have an environmental mandate, which often translates into taking integrated approaches to promote conservation and sustainable development through a multi-sectoral scope of work.

Figure 7.1. Types of Civil Society Organizations Identified in the Hotspot (262 Total)



All Andean countries have regulatory frameworks and agencies in charge of registering and evaluating civil society organizations. In Venezuela, Colombia, Bolivia and Ecuador, NGOs are legally required to align their priorities within their country's national development plan. Peru has a rich set of mechanisms and experiences for close collaboration, including conservation concessions, REDD+ projects, private protected areas, and co-management of protected areas. CEPF's grants in Bolivia and Ecuador demonstrate the importance of having civil society grantees work in close partnership with governments to ensure success.

Overall the NGO sector is perceived as having a positive role in biodiversity conservation and sustainable natural resource management. However, the magnitude and nature of the extractive industry expansion and other development initiatives is a great challenge for some conservation and indigenous organizations, which at times have found themselves targets of criticism and governmental scrutiny. Notwithstanding this sometimes complex operating environment, civil

society organizations continue to play a key role in complementing conservation programs and policy at all levels of government.

Capacity of Civil Society Organizations

The ecosystem profile finds that all countries have a wide range of NGOs, with significant technical expertise and the ability to cooperate with government, academia, business and social organizations. However, to realize their full potential to address the scale of the conservation challenge in the Andes, significant resource and capacity limitations still need to be overcome. Profiling workshops found that in all countries, subnational and local organizations had limited technical staff and insufficient funding, while national organizations faced funding challenges.

A survey of national experts conducted for the ecosystem profile found that only 46 percent of subnational NGOs were considered to have "very good" institutional capacity and that most community organizations do not have adequate human and financial resources. The lack of these resources results in reduced institutional capacity for local organizations, with only 47 percent characterized as having good capacity (see Table 7.2).

Table 7.1. Institutional Capacity of Community-Based and Indigenous Organizations in the Hotspot

Country	Number of Organizations	Have Sufficient Human Resources			Have Sufficient Financial Resources			Institutional Capacity Very Good: 1, Good: 2, Limited: 3		
		Yes	Partial	No	Yes	Partial	No	1	2	3
Argentina	6	1	2	3	2	2	2	0	4	2
Bolivia	10	1	0	9	1	0	11	0	3	9
Chile	1	0	1	0	0	1	0	0	1	0
Colombia	6	1	5	0	0	5	1	0	1	0
Ecuador	8	2	5	1	2	5	1	0	7	1
Peru	5	1	1	3	1	0	4	0	1	4
Venezuela	0	--	--	--	--	--	--	--	--	--
Total	**36**	**6**	**14**	**16**	**6**	**13**	**19**	**0**	**17**	**16**

Source: Consultation workshops and interviews 2013-2014.

Many local and subnational groups also face challenges in financing their work, in part due to a reduction in available funding sources. For example, several European aid agencies have left the hotspot due to its robust economic growth and middle-income status. Weak fundraising capacity of local NGOs is a critical issue highlighted in the consultation.

Consultations reveal a number of priorities for Andean civil society. Groups need to improve their ability in communications to engage in effective dialogue with governments and the public about their environmental concerns and priorities. Building institutional and technical capacity for local and subnational organizations also is a high priority, particularly as ample space exists to work with subnational governments responsible for the environment, as they still have significant

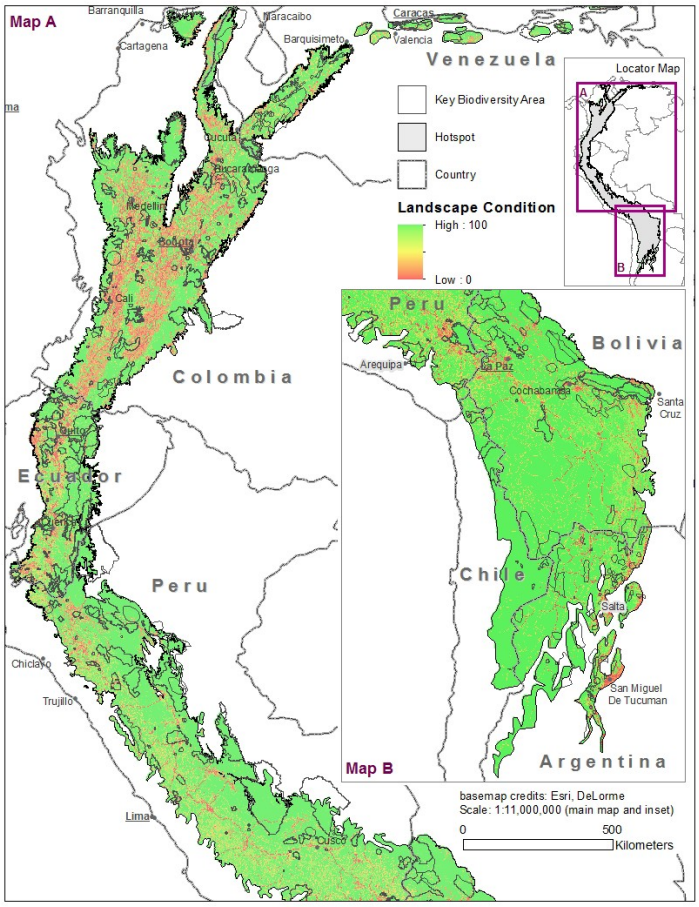
institutional and technical weaknesses. Furthermore, environmental NGOs need to diversify their funding base to get beyond their dependency on international donors.

8. SYNOPSIS OF CURRENT THREATS

The concentration of human population in the Andes increased tremendously in the 20th century with the onset of mechanized crop production, extensive cattle ranching and population growth. These activities transformed the natural vegetation of the inter-Andean valleys, adjacent slopes and high plateaus, causing losses in biological richness, especially in the northern Andes.The ecosystem profile quantifies the threats facing the hotspot for the period of 2007 to 2012, accounting for agricultural land uses, grazing, highways and roads, electrical transmission lines, urban areas, gas and oil pipelines, and mines (see Figure 8.1). The model shows high levels of threat in Venezuela, Colombia and Ecuador, largely driven by agriculture and urban growth. The northern Andes, and northern Peru to some extent, are covered by a patchwork of small to industrial-sized commercial pasture for cattle and crops. The Pan-American Highway and improved secondary roads provide access for a range of development activity.

In Peru and Bolivia, vast forests still cover on the eastern slopes, while extensive puna grasslands cover the highlands. Agriculture and grazing does occur on the puna but not at the same scale as in the north. Intensive high elevation mining from Peru to Chile is associated with significant negative impacts. Recent improvements and the planned expansion of the road network will crisscross the forested eastern slopes of Peru and Bolivia, likely resulting in conversion and fragmentation in unprotected areas and, in some cases, even in legally protected areas.

Figure 8.1. Landscape Condition of the Tropical Andes Hospot (Baseline 2007-2012)



Frequency of Threats to Regions, Corridors and KBAs

The profile analyzes the comparative vulnerability of the KBAs and characterizes their threats based on expert opinion, as summarized in Table 8.1. The results indicate that the most important threats are mining and new road infrastructure, followed by deforestation, grazing and agricultural advancement. New road infrastructure and grazing are the only threats cited in all countries. Urban expansion, public infrastructure other than roads, human occupation and illegal land occupancy are moderately important threats across the hotspot. Insecurity and violence in KBAs/corridors are important in Bolivia, Colombia and Venezuela, as are illegal crops in Bolivia, Colombia and Peru. Threats from hydrocarbons and unorganized or expanding tourism are as important as insecurity and illegal crops. Least frequently cited are illegal logging, firewood collection, illegal hunting and wildlife trafficking, industrial agriculture and other threats.

In response to the broad array of threats and recognized funding limitations to manage national protected area systems, some countries are devolving management responsibility for protected areas to local and regional governments, civil society, private landowners, local communities and indigenous peoples. A number of these subnational and privately managed protected areas are located in the hotspot, some associated with KBAs.

Table 8.1. Prevalence of Threats in KBAs and Corridors by Country

Threat	Prevalence in KBAs and Corridors[1]							Total
	Argentina	Bolivia	Chile	Colombia	Ecuador	Peru	Venezuela	
Mining	xxx	xxxxx	xxx	xxxxx	xxx	xxxxx	--	24
New road infrastructure	xxxx	xxxxx	x	xxxxx	xxxx	xxxx	x	23
Deforestation	xx	xxxx	--	xx	xxx	xx	xx	15
Grazing	xx	xx	x	xxx	xxxx	x	xx	15
Agricultural encroachment	x	xxx	--	xx	xxx	xxx	x	14
Urban expansion	xxx	--	--	xxx	xx	xx	x	11
Other infrastructure (dams)	x	xx	--	xx	xx	xxxx	--	11
Colonization	-	xxxx	--	x	x	xx	x	9
Illegal land occupancy and insecure land rights	x	xx	--	xxx	x	x	x	9
Hydrocarbons	xx	xx		xx	--	x	--	7
Illegal crops (coca)	--	xx	--	xx	--	xx	--	7
Tourism	x	x	--	xxx	--	x	x	7
Civil unrest	--	x	--	xx	--	--	xxx	7
Other threats3	--	xx	x	x	x	--	x	6
Illegal Logging	x	x	--	--	x	x	--	4
Firewood collection	--	x	--	--	--	--	--	4
Industrial agriculture	xx	--	-	x	--	--	--	3
Hunting, wildlife trafficking	--	xx	--	--	x	--	--	3

[1]Scoring: x = low prevalence, xxx=medium prevalence, and xxxxx=high prevalence.

9. CLIMATE CHANGE ASSESSMENT

Temperatures have increased throughout the Tropical Andes since the 1970s, although at a slower rate than the global average. Temperature increases appear to be greater at higher elevations. Although precipitation has also changed across the Andes, climatologists have so far not detected any consistent patterns to the changes. Climate models suggest future temperature increases in the Andes under current greenhouse gas emission scenarios. They project higher temperatures at upper elevations and an increase in precipitation on both slopes of the Andes. The western slope may see a 70 percent increase in precipitation, while precipitation in the altiplano may decrease by 10 percent.

Ongoing climate change has already left a mark on natural systems. Observation on the eastern slope of the Andes in Peru has demonstrated an upslope migration of trees at a rate of 2.5 to 3.5 vertical meters per year. Tree lines have also migrated upslope, but more slowly. Similarly, high-elevation frog species and birds have expanded their distributions upslope.

Research increasingly indicates that climate change will be a serious concern for tropical species and habitats. For example, species that do not generate body heat internally, including most reptiles, amphibians and insects, may be especially vulnerable to temperature changes. High-elevation species may face "mountaintop extinction," where they have nowhere to go to track a favorable climate. Even species able to shift their distributions are moving at rates far slower than required to keep up with the current rate of climate change. If they could disperse upslope fast enough, they face formidable obstacles with fragmented landscapes. Just as species vary in their vulnerability to the effects of climate change, so do Andean landscapes. The ecosystems most vulnerable to climate change, páramos and cloud forests, are those that have had the shortest history of human intervention.

Climate change also brings up serious concerns for human populations. Reduced glacial runoff threatens water supply for domestic use, agriculture and hydropower, and leads to greater seasonal fluctuations of the Amazon River. High rainfall events have lashed out throughout the Andes with increasing frequency, causing loss of life and extensive property damage. Rising temperatures increase fire frequency, reducing the quality of agricultural lands. Climate change has been implicated in the spread of fungal diseases in maize, potato, wheat and bean crops in Peru, and will almost certainly affect more crops in the future. And, uncertainties around the impact of climate change on agricultural yields may have serious implications for the future food supply for Latin America's growing population.

Human responses to climate change will also affect natural communities. As glacial runoff declines, humans will seek to capture water from natural aquatic systems, leaving less water for aquatic species. Warming temperatures will allow farming and grazing to take place at higher elevations, destroying páramos that were previously too high to be of use to agriculture.

The ecosystem profile assesses one parameter to determine the resilience of the hotspot's corridors based on the diversity of current climate regimes. The profile finds that the corridors are expected to be fairly resilient to climate change as long as natural habitats within different bioclimates retain connectivity to allow species to track their favored climates. The Andes' high bioclimatic diversity is not surprising given its mountainous landscapes. The corridors with the

lowest bioclimatic diversity are in the Pacific slope of the Andes and southwestern extreme of the hotspot, which are characterized by dry climates and less topographic diversity. However, those species and habitats that are adapted to extreme climates and reliant on glacier-driven hydrological cycles are vulnerable.

Policy Responses

Despite the hotspot's vulnerability to climate change, Andean national policy has tended to emphasize mitigation opportunities, especially in the form of policies, programs and projects for Reducing Emissions from Deforestation and Forest Degradation (REDD+). Land use, land-use change and forestry are important sources of emissions for most countries, despite the Andes' relatively small contribution to global carbon emissions. As a result, REDD+ has been viewed by most countries, with the exception of Bolivia, as a promising opportunity to mobilize additional financial resources for forest conservation and management.

To date, efforts have taken a phased approach to national-level REDD+, moving broadly from preparatory "readiness" activities towards eventual results-based payments. International public funding has largely emphasized preparatory activities rather than investments leading directly to emissions reductions on the ground. This "readiness" funding has created a surge in investment and capacity for monitoring forest cover with important collateral benefits for conservation. Of the multilateral organizations, the UN-REDD Program and the World Bank's Forest Carbon Partnership Facility make a particularly prominent contribution. The governments of Germany, Japan and the United States are providing significant levels of support. Norway recently announced a $300-million project to co-finance efforts to prevent deforestation in Amazonian and Yungas forests of Peru. Underscoring Peru's commitment to the UNFCCC process, Lima hosted the COP 20 in December 2014.

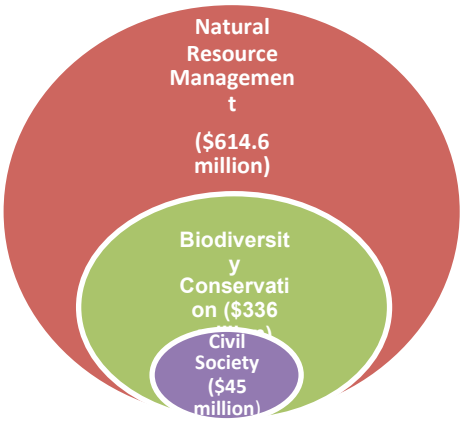
Role of Civil Society

Civil society organizations have been actively engaged in climate change issues in all hotspot countries, providing an important complement to the larger-scale government initiatives. Civil society has made significant contributions to climate change policy formation through technical engagement and research on pilot activities. They have provided capacity building and technical assistance to regional and national governments and to local communities. Civil society has played a prominent role in developing offset projects for the voluntary carbon market, with the majority of REDD+ projects led by local and international NGOs. The Alto Mayo Conservation Initiative is the largest private sector REDD+ project in the region, with a commitment of $3.5 million from the Walt Disney Company to purchase the carbon credits.

10. SYNOPSIS OF CURRENT INVESTMENT

The ecosystem profile finds that national governments and international donors channeled $614.4 million for a wide variety of resource management projects and operations from 2009 to 2013. Of this amount, $336 million was channeled for activities that had biodiversity conservation as a principal objective. Put in context against the hotspot's vast size, these investments were spread thin, with $0.40 invested per hectare per year for biodiversity conservation. Funding for civil society groups from international donors totaled $45 million, which equaled $12.5 million per year to cover an area three times the size of Spain across the seven countries.

Figure 10.1. Investment for Natural Resources Management in the Tropical Andes Hotspot, 2009-2013



Funding for natural resources management activities supported 12 thematic areas, as shown in Figure 10.2. Five thematic areas directly supported biodiversity conservation: protected areas management, landscape conservation and biological corridors, climate change-REDD+, species protection and biodiversity research.

Figure 10.2. Funding for Natural Resources Management, 2009 – 2013 (Total, $614.6 million)

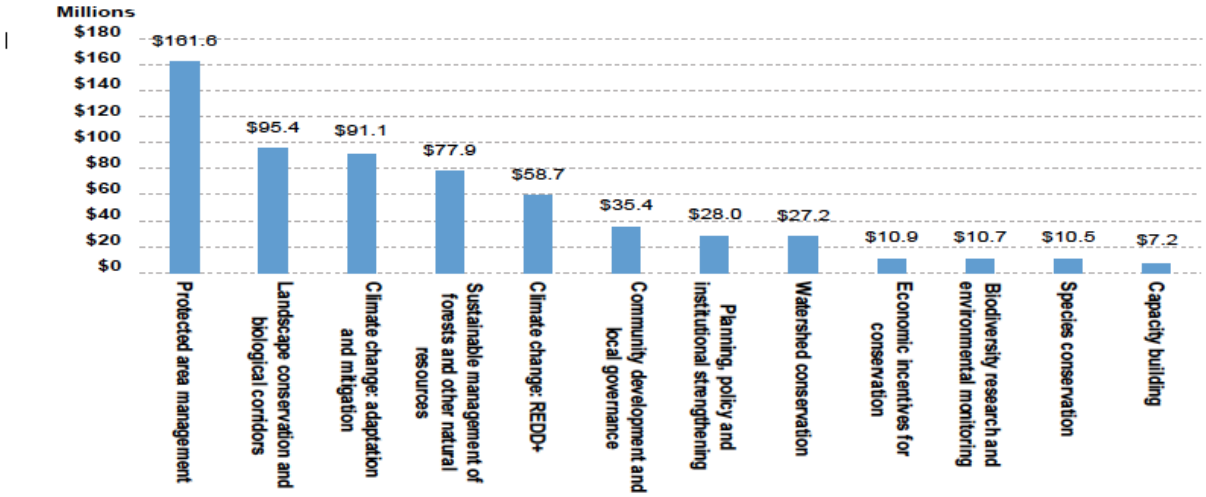


Table 10.1. Protected Areas Funding by Country, 2009-2013

Country	Size of Protected Areas in Hotspot (ha)	Average Funding per Year (2009-2013) ($)	Hotspot Average Funding per Hectare per Year ($)	National Average Funding per Hectare per Year, Not Adjusted for Hotspot ($)[1]
Argentina	3,587,167	Not available	--	8.56/ha
Bolivia	5,616,076	2.8 million	0.51	0.32/ha
Chile	997,380	Not available	--	0.60/ha
Colombia	3,955,774	11.7 million	2.95	1.75/ha
Ecuador	1,783,394	3.2 million	1.77	0.82/ha
Peru	5,740,362	14.6 million	2.54	0.72/ha
Venezuela	1,800,242	Not available	--	1.01/ha

[1]Source: UNDP (2010)..

Sources of Investment

Multilateral donors comprised the largest source of financing for natural resources management, providing nearly 42 percent of total investment, followed by bilateral agencies at 35 percent and national governments at 20 percent. The vast majority of international funds supported national governments. More than half (51 percent) of all conservation investment was shared by Peru (32 percent) and Bolivia (19 percent), with the remaining five countries—Colombia (18 percent), Ecuador (13 percent), Venezuela (4 percent), Argentina (0.2 percent) and Chile (0 percent)—receiving 35 percent combined. Regional or multi-country investments of $82.9 million comprised the remaining 15 percent of total investment.

Table 10.2. Natural Resource Management Investment by Funding Source, 2009-2013 ($ million)

Source of Investment	Donor	Total Investment	Geographic focus	
			National Level	Site / Regional
Multilateral donors	Global Environment Facility (GEF), European Union (EU), Inter-Development Bank (IDB), The World Bank, GEF Small Grants Programme (GEF SGP), Critical Ecosystem Partnership Fund (CEPF), United Nations REDD Program (UN-REDD), United Nations Development Program (UNDP), Nordic Development Fund (NDF), International Tropical Timber Organization (ITTO), Food and Agricultural Organization (FAO), United Nations Environment Program	257.9 (42%)	103.2 (40%)	154.7 (60%)
Bilateral agencies	United States, Germany, Japan, Switzerland, Belgium, Denmark, Finland, United Kingdom, Netherlands, Canada, Australia, Norway, France and Spain	216.0 (35%)	127.4 (59%)	88.6 (41%)
National governments	Government of Colombia, Peru, Ecuador and Bolivia	121.2 (20%)	116.3 (96%)	4.8 (4%)
Foundations	MacArthur Foundation, Blue Moon Fund, Moore Foundation, Overbrook Foundation, JRS Biodiversity Foundation, Tinker Foundation, John Fell Fund, Wallace Global Fund, bin Zayed Fund, Swift Foundation	15.3 (2%)	1.4 (9%)	13.9 (91%)
Other	Walt Disney Company, Cargill, Cerrejon , J.P. Morgan , Face the Future , CCX	4.0 (1%)	0.3 (8%)	3.7 (92%)
Total		614.4	348.6 (57%)	265.7 (43%)

Conservation Trust Funds

To support the long-term costs of protected areas and biodiversity conservation, four Andean

countries have set up conservation trust funds (see Table 10.3). These private, legally independent grant-making institutions provided $60.7 million between 2009 and 2013 to both public agencies and civil society groups for a wide range of activities. They are frequently financed through debt swaps, grants or donations. Peru's two trust funds, FONDAM and PROFONANPE, accounted for 53 percent of all trust fund resources, followed by Colombia's two trust funds at 37 percent. Trust funds for Ecuador and Bolivia together accounted for only nine percent of total funding. Through its previous investments, CEPF co-financed projects with four trust funds—FUNDESNAP, Fondo Acción, FAN and FONDAM —for protected areas management and sustainable livelihoods projects.

Table 10.3. Conservation Trust Funds in the Tropical Andes Hotspot, 2009-2013

Country	Conservation Trust Fund	Investments (US$)
Bolivia	Fundación para el Desarrollo del Sistema Nacional de Áreas Protegidas (FUNDESNAP)	4 million
Colombia	Fondo Patrimonio Natural	14.3 million
	Fondo para la Acción Ambiental y la Niñez (Fondo Acción)	8.4 million
Ecuador	Fondo Ambiental Nacional (FAN)	1.6 million
Peru	Fondo de las Américas (FONDAM)	15.9 million
	Fondo de Promoción de las Áreas Naturales Protegidas del Perú (PROFONANPE)	16.4 million

Investments in Civil Society

Civil society organizations, particularly local and subnational groups, faced limited access to international conservation financing, relying on private foundations as an important source of financing. Summing direct funding to local and national groups from international donors yields a figure of $45 million over five years. This figure is a minimum, as it does not include those funds going to civil society through government contracts, international NGO sub-awards or conservation trust funds. Still, the estimate is an indicator of the limited funding available to local and subnational groups.

During the ecosystem profiling workshops, participants highlighted the challenges faced by national and local groups in securing funding from bilateral and multilateral donors. CEPF and the GEF Small Grants Program are the two multilateral donors that directly fund local and national groups, responsible for $9.8 million, 1.7 percent of overall hotspot funding. While the private sector, foundations and NGOs comprised the smallest source of resource management funding, they constituted a major source of funding for local and national NGOs.

Funding Gaps and Opportunities

Funding across the conservation corridors identified in the ecosystem profile was highly variable, with 13 of the 29 corridors having no funding identified. Of the remaining 16 corridors, eight corridors received over $1 million and another eight received less than $1 million over the five-year period examined. Funding for species conservation was very limited at $10.5 million for five years (equivalent to 3% of funding for biodiversity conservation), mainly channeled to migratory and endangered birds and amphibians. There were major gaps for plants, fish, reptiles

and mammals, surprisingly even for charismatic mammals such as the spectacled bear or mountain tapirs. Although limited funding was available for amphibian conservation, it was insufficient given the extreme threat levels that put high numbers of amphibians at the brink of extinction.

Despite the fact that protected areas are receiving what appear to be increasing allocations of government funding in many countries, these resources are nevertheless thinly spread over very large and often remote areas. No country spent more than $2.95 per hectare for protected areas management, and some spend far less. Generating new funding streams for protected areas continues to be a significant need for all hotspot countries and virtually every KBA.

REDD+ and climate change creates important opportunities to leverage climate funding by emphasizing synergies with biodiversity areas, as well as the possibility of leveraging private sector finance, if and when carbon markets begin to mobilize significant resources for offset projects and jurisdictional REDD+ systems.

Although investment for biodiversity conservation in the Tropical Andes totaled $336 million from 2009 to 2013, this amount is miniscule when compared to other sectors and to the magnitude of threats faced. Investments in agriculture, mining, transport and energy infrastructure are orders of magnitude greater, running into the hundreds of billions of dollars. Engaging effectively with these other sectors and leveraging modest levels of conservation funding to create change in policies and practices that favor biodiversity and sustainable economic development will be essential to their sustainability and ultimate success.

11. CEPF NICHE FOR INVESTMENT

The ecosystem profile finds that the Tropical Andes Hotspot is at an important juncture, as unprecedented economic growth based on extractive industries and infrastructure expansion bring the promise of development to millions of people, but also come with potentially large environmental and social costs.

The CEPF investment niche is to enable local indigenous, Afro-descendent, mestizo groups and environmental civil society organizations to serve as effective advocates for and facilitators of multi-stakeholder approaches that promote biodiversity conservation and sustainable development in the Tropical Andes Hotspot. Civil society organizations stand in an excellent position to bridge biodiversity conservation and sustainable development with goals of economic growth. Collectively, these groups understand the needs and aspirations of local people, have technical expertise and field experience in linking biodiversity conservation with local development, and have a long track record of leadership in advocating for environmental and social sustainability.

Given this imperative, CEPF will work to ensure that the Andes' outstanding biodiversity and ecosystem services are conserved in perpetuity in its highest priority areas, while promoting development approaches that are compatible with environmental and social sustainability. The niche calls for supporting civil society groups at two mutually-dependent levels of action in the highest priority KBAs and corridors of the hotspot:

- At the **site level**, CEPF will seek to put in place the enabling conditions required to achieve long-term conservation and sustainable development in the highest priority KBAs. Support will target traditional management planning and implementation in protected areas. In unprotected sites, CEPF will promote appropriate land management designations, and secure land tenure and planning frameworks to foster a development path that is based on sustainability. At the same time, CEPF will support the development of incentive schemes that offer tangible benefits to local communities from biodiversity conservation and sustainable resource management.

- At the **corridor level**, CEPF will work to ensure subnational governance frameworks—specifically with provincial, departmental, state and municipal governments where responsibility for resource management has been decentralized—to support sustainable development by mainstreaming biodiversity conservation into policies, projects and plans undertaken by the private sector and governments.

    - For the public sector, CEPF will support efforts with subnational governments to mainstream biodiversity conservation and sustainable development into landscape-scale public policy planning and implementation frameworks. Special emphasis will be placed on ensuring the social and environmental sustainability of large development projects and mainstreaming biodiversity conservation into broader development programs and financing schemes.

    - For the private sector, CEPF will support opportunities to strengthen and scale up the

linkage between conservation and income generation, such as for coffee and ecotourism. It will seek to scale up private sector financing for conservation. CEPF will also promote constructive approaches to engage extractive industries and infrastructure developers to ensure that social and environmental safeguards are adopted for development schemes that put the KBAs at risk.

The CEPF niche calls for integrating two crossing-cutting themes into all relevant grant-making objectives and programming: mainstreaming climate change resilience and strengthening capacities for indigenous people and Afro-descendants. CEPF will seek to ensure the sustainability of the results achieved through capacity building of those civil society partners that are strategically positioned to achieve CEPF conservation outcomes. Furthermore, building local capacities and mechanisms for sustainable financing will be of paramount importance, as will leveraging funding from existing incentive programs, such as Ecuador's Socio Bosque program.

The niche also recognizes that CEPF's role will need to be highly catalytic, to foster multi-stakeholder alliances and to leverage new and existing resources to launch and/or strengthen a development path that integrates the conservation of biodiversity and ecosystem services with economic growth. CEPF will build the capacity of local civil society groups and multi-stakeholder alliances to achieve consensus on common development and conservation objectives and to support key approaches to achieve these objectives. It will be essential to foster consensus and conflict resolution techniques from a broad cast of stakeholders groups—environmental and development agencies at all governmental levels, the private sector, representatives of federations of indigenous peoples and campesinos, and the environmental community.

CEPF seeks to work in close partnership with public and private conservation donors to ensure complementarity of funding priorities and to identify opportunities for synergies. Special effort will be put on collaborating with those CEPF donors that have active programs in the hotspot, namely with Conservation International, the European Union, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and The World Bank.

CEPF also will seek to work closely with the conservation trust funds, building on the fruitful collaborations of previous CEPF investments with Fondo Accion, FAN, FONDAM and FUNDESNAP. In the course of the ecosystem profiling process, CEPF met with all six of the Andes' conservation trust funds, four of which attended the stakeholder consultation workshops. All six trust funds have demonstrated strong interest in pursuing opportunities for collaboration, including the possibility of co-financing individual grants, strategic directions, or conservation efforts in specific KBAs and corridors.

Collaboration also will be pursued with private donors funding conservation efforts. CEPF has already opened discussions with several important private foundations, including Blue Moon, AVINA and Bobolink, who have expressed interest in exploring possible lines of collaboration.

12. CEPF INVESTMENT STRATEGY

Encapsulating the investment niche in the Tropical Andes Hotspot, CEPF aims to leave a legacy over the long run, whereby civil society groups can serve as effective stewards and champions to safeguard the hotspot's globally outstanding biological diversity, while ensuring the health of its vital ecosystem services, resilience in the face of global climate change, and welfare of its people. The CEPF investment strategy lays out a road map to achieve this ambitious mission. It calls for supporting civil society organizations, particularly local and subnational organizations, to undertake innovative conservation approaches to conserve the hotspot's most vulnerable species, sites and corridors.

KBA and Corridor Prioritization

The ecosystem profile identifies a set of priority geographies that allow CEPF to focus its funding in areas of high global biodiversity value that are under threat but present excellent opportunities to engage civil society in conservation. KBA prioritization is based on eight factors:

i. *Biological importance* – Relative biodiversity value of each KBA as determined by the presence of threatened species, their status on the IUCN Global Red List, and site irreplaceability.

ii. *Degree of threat* – Vulnerability scores based on such threats as agricultural encroachment, roads, cities, oil pipelines, and mines.

iii. *Funding need* - Level of investment by national and international donors for conservation at the corridor level.

iv. *Management need* – Existence of management plans, staffing and infrastructure, and mechanisms for community engagement and sustainable funding.

v. *Civil society capacity* - Derived from the institutional capacity surveys and consultations, emphasizing the capacity need of local civil society groups.

vi. *Operational feasibility* – Viability of civil society to work effectively based on security risk, drug trafficking, or legal prohibitions.

vii. *Opportunity for landscape-scale conservation* – Ability to achieve landscape-scale conservation through linkage to large KBAs.

viii. *Alignment with national priorities* - Support for those KBAs that are national biodiversity priorities.

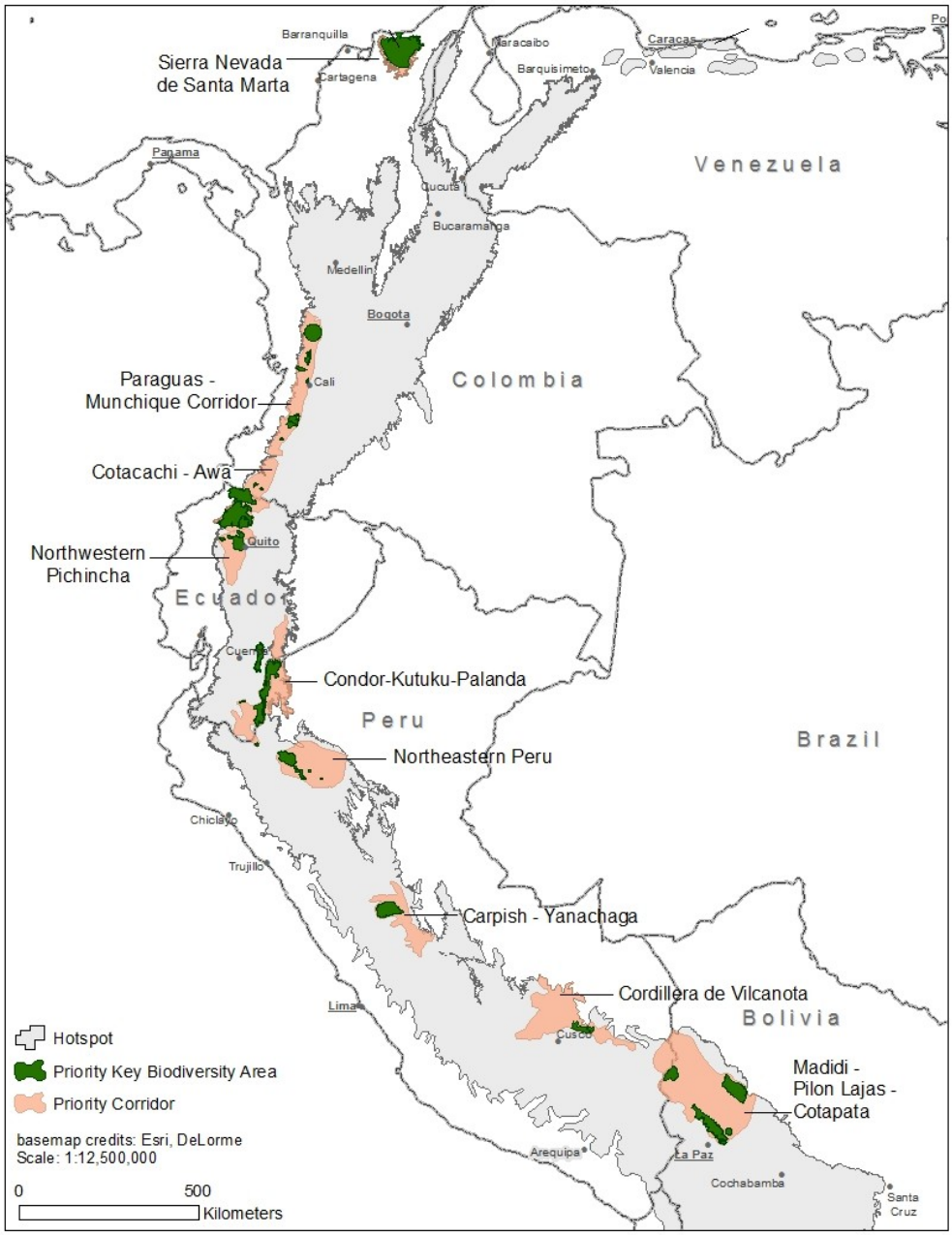
Based on the findings, the investment strategy targets 36 KBAs located in seven corridors (Figure 12.1, Table 12.1). These 36 KBAs cover 3.4 million hectares and represent 12 percent of the hotspot's 442 KBAs. In total, the priority KBAs cover about 10 percent of the 33.2 million hectares that fall within KBA designation. Most priority KBAs are located in Colombia (11 KBAs) and Ecuador (12 KBAs), with fewer areas in Peru (seven KBAs) and Bolivia (six KBAs).

Collectively, the KBAs represent those sites with the highest biological values, are under the most threat, are in need of urgent management improvement, and do not present high security risk for CEPF grantees. They also provide vital ecosystem services, supplying water to major

cities and agricultural zones and sustaining vast tracks of carbon-rich forests. They range in size from 348 hectares (Alto de Oso) to 652,714 hectares (Sierra Nevada de Santa Marta National Natural Park and surrounding areas), with an average size of 94,417 hectares. Several priority KBAs overlap with indigenous and Afro-descendant territories.

The seven priority corridors cover 16.1 million hectares, or about 10 percent of the hotspot's total area. The largest corridor is Madidi-Pilón Lajas-Cotapata in Bolivia and Peru at 4.6 million hectares, and the smallest is Sierra Nevada de Santa Marta in Colombia at 652,714 hectares.

Figure 12.1. Priority KBAs and Corridors for CEPF Investment in the Tropical Andes Hotspot



Note: The Paraguas-Munchique, Cotacachi-Awa and Northwestern Pichincha corridors will be managed as a corridor cluster.

Table 12.1. CEPF Priority KBAs and Corridor Clusters in the Tropical Andes Hotspot

Corridor Clusters	Priority KBAs	Area (ha)
Sierra Nevada de Santa Marta Corridor (Colombia)	Sierra Nevada de Santa Marta National Natural Park and surrounding areas (COL110)	652,714
	Corridor Priority KBA Area	**652,714**
Paraguas-Munchique, Cotacachi-Awa, Corridor, Northwestern Pichincha Corridor Cluster (Colombia and Ecuador)	Alto de Oso (COL4)	348
	Bosque de San Antonio/Km 18 (COL7)	5,994
	Corredor Awacachi (ECU28)	28,436
	Intag-Toisán (ECU34)	65,005
	Los Bancos-Milpe (ECU41)	8,272
	Maquipucuna-Río Guayllabamba (ECU43)	21,070
	Mindo and western foothills of Volcan Pichincha (ECU44)	103,494
	Munchique Sur (COL54)	28,358
	Parque Nacional Natural Munchique (COL67)	52,107
	Parque Natural Regional Páramo del Duende (COL75)	32,136
	Región del Alto Calima (COL80)	21,918
	Reserva Ecológica Cotacachi-Cayapas (ECU61)	369,936
	Reserva Natural La Planada (COL88)	3,399
	Reserva Natural Río Ñambí (COL91)	8,595
	Río Caoní (ECU54)	9,101
	Serranía de los Paraguas (COL106)	171,967
	Serranía del Pinche (COL109)	4,870
	Territorio Étnico Awá y alrededores (ECU70)	204,930
	Corridor Priority KBA Area	**1,139,936**
Cóndor-Kutuku-Palanda Corridor (Ecuador and Peru)	Abra de Zamora (ECU2)	6,671
	Alrededores de Amaluza (ECU6)	109,052
	Bosque Protector Alto Nangaritza (ECU9)	112,692
	Cordillera del Cóndor (ECU27)	257,018
	San Jose de Lourdes (PER86)	5,005
	Corridor Priority KBA Area	**490,438**
Northeastern Peru Corridor (Peru)	7 km East of Chachapoyas (PER4)	2,896
	Abra Pardo de Miguel (PER6)	4,195
	Cordillera de Colán (PER29)	134,874
	Rio Utcubamba (PER84)	35,534
	Corridor Priority KBA Area	**177,499**
Carpish-Yanachaga Corridor (Peru)	Carpish (PER17/18)	211,340
	Corridor Priority KBA Area	**211,340**
Cordillera de Vilcanota Corridor (Peru)	Kosnipata-Carabaya (PER44)	86,512
	Corridor Priority KBA Area	**86,512**
Madidi-Pilón Lajas- Cotapata Corridor (Bolivia and Peru)	Bosque de Polylepis de Madidi (BOL5)	94,614
	Bosque de Polylepis de Sanja Pampa (BOL7)	1,878
	Bosque de Polylepis de Taquesi (BOL8)	3,456
	Coroico (BOL12)	25,569
	Cotapata (BOL13)	265,202
	Yungas Inferiores de Pilón Lajas (BOL37)	249,858
	Corridor Priority KBA Area	**640,577**
Total	**CEPF Priority KBA Area**	**3,399,016**

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Strategic Directions and Investment Priorities

To achieve the CEPF niche and conservation outcomes, CEPF will provide grants to civil society organizations over a five-year period to achieve seven strategic directions and their corresponding investment priorities. The strategy calls for integrating as cross-cutting objectives planning for climate change adaptation and resilience and strengthening capacity for indigenous and Afro-descendent civil society groups and their territories. Six strategic directions directly target the achievement of the CEPF niche and conservation outcomes. The seventh strategic direction supports a regional implementation team (RIT), which provides strategic leadership, management support, and stakeholder outreach and assistance in fulfillment of the CEPF investment strategy. These strategic directions are based on stakeholder consultations from eight workshops, complemented by analysis and information presented in the ecosystem profile. Strategic directions are summarized in Table 12.2 and described in greater detail below.

Table 12.2. CEPF Strategic Directions and Investment Priorities for the Tropical Andes Hotspot

Strategic Directions	Investment Priorities
1. Improve protection and management of 36 priority KBAs to create and maintain local support for conservation and to mitigate key threats.	1.1 Support preparation and implementation of participatory management plans that promote stakeholder collaboration in managing protected KBAs.
	1.2 Facilitate the establishment and/or expansion of indigenous, private, and subnational reserves and multi-stakeholder governance frameworks for conserving unprotected and partially protected KBAs.
	1.3 Strengthen land tenure, management, and governance of indigenous and Afro-descent territories.
	1.4 Catalyze conservation incentives schemes for biodiversity conservation for local communities.
2. Mainstream biodiversity conservation into public policies and development plans in seven corridors to support sustainable development, with a focus on sub-national governments.	2.1 Support land-use planning and multi-stakeholder governance frameworks that create shared visions for integrating biodiversity conservation and ecosystem services into the corridor-level development.
	2.2 Integrate biodiversity objectives into development policies, programs, and projects that impact resource use, including climate change, agricultural development, and water resources.
	2.3 Promote traditional and innovative financial mechanisms for conservation, including payments for ecosystem services, leveraging of rural and micro-credit, mainstreaming biodiversity into climate change programs, and compensation mechanisms to mobilize new conservation finance.
3. Promote local stakeholder engagement and the integration of social and environmental safeguards into infrastructure, mining and agriculture projects to mitigate potential threats to the KBAs in the seven priority corridors.	3.1 Build local capacity and facilitate public consultation and alliance building in the assessment, avoidance, mitigation, and monitoring of environmental impacts of large development projects that pose a direct or indirect risk to the KBAs.
	3.2 Encourage constructive approaches to promote environmental and social sustainability of infrastructure, mining, and agriculture projects through partnerships between civil society groups, the private sector, and international investors.
	3.3 Integrate biodiversity objectives into development policies, programs, and projects related to mining, infrastructure, and agriculture.
4. Promote and scale up opportunities to foster private sector approaches for biodiversity conservation to	4.1 Promote the adoption and scaling up of conservation best practices in those enterprises compatible with conservation to promote connectivity and ecosystem services in the corridors.

	benefit priority KBAs in the seven corridors.	4.2 Encourage private sector partners and their associations to integrate conservation their business practices and implement corporate social responsibility policies and voluntary commitments
		4.3 Leverage of private-sector financing schemes, such as carbon projects and green bonds that benefit the conservation outcomes.
5	Safeguard globally threatened species.	5.1 Prepare, help implement, and mainstream conservation action plans for the priority Critically Endangered and Endangered species and their taxonomic groups.
		5.2 Update KBA analysis for mainstreaming to incorporate new AZE sites and Red Listing of reptiles, freshwater species and plants, based on addressing several high-priority information gaps.
6	Strengthen civil society capacity, stakeholder alliances and communications to achieve CEPF conservation outcomes, focusing on indigenous, Afro-descendent and mestizo groups	6.1 Strengthen the administrative, financial and project management, and fundraising capacity of civil society organizations and indigenous and Afro-descendent authorities to promote biodiversity conservation in their territories.
		6.2 Enhance stakeholder cooperation, alliance building and sharing of lessons learned to achieve CEPF's conservation outcomes, including efforts to foster hotspot-wide information sharing.
		6.3 Strengthen capacity in communications of CEPF partners to build public awareness of the importance of the conservation outcomes.
		6.4 Pilot and scale up promising approaches for the long-term financing of local and national civil society organizations and their conservation missions.
7	Provide strategic leadership and effective coordination of CEPF investment through a regional implementation team.	7.1 Operationalize and coordinate CEPF's grant-making processes and procedures to ensure effective implementation of the investment strategy throughout the hotspot.
		7.2 Build a broad constituency of civil society groups working across institutional and political boundaries toward achieving the shared conservation goals described in the ecosystem profile.
		7.3 Engage governments and the private sector to mainstream biodiversity into policies and business practices.
		7.4 Monitor the status of biogeographic and sectoral priorities in relation to the long-term sustainability of conservation in the hotspot.
		7.5 Implement a system for communicating and disseminating information on conservation of biodiversity in the hotspot.

Strategic Direction 1. Improve protection and management of 36 priority KBAs to create and maintain local support for conservation and to mitigate key threats.

Safeguarding the 36 priority KBAs in the Tropical Andes requires a multi-pronged approach. Site-based protection is and will remain a cornerstone for the conservation of threatened species and ecosystems in the Tropical Andes. However, only 12 percent of the land area in the priority KBAs is sufficiently protected, leaving the remaining 88 percent only partially protected or unprotected. Even the 16 fully and partially protected KBAs confront significant management challenges. Increasing management capacity of existing protected areas and bringing those unprotected areas under legal designations compatible with conservation in order to mitigate key threats and to create local support for conservation are key objectives of this strategic direction. Working with indigenous groups and local people to secure land tenure and defend their legally authorized self-governance that allows traditional land uses compatible with biodiversity conservation is also an important strategy. Planning for climate change resilience will be sought in site-based grants.

Furthermore, helping local communities derive tangible benefits from biodiversity conservation in and adjacent to priority KBAs is essential, and will be achieved by engaging them in management decision making and by cultivating opportunities for them to derive income and access to public services.

1.1 Support preparation and implementation of participatory management plans that promote stakeholder collaboration in managing protected KBAs.

CEPF will fund civil society organizations to work with their government counterparts, communities, private sector and other stakeholders to create, review, update and implement participatory management plans. CEPF will seek to catalyze funding to support traditional protected areas management activities. It will help create partnerships and participatory mechanisms by which communities located in and around the borders of these areas are engaged in management efforts by, for example, creating and consolidating stakeholder management committees. This investment priority also will integrate climate change adaption and resilience into management planning by funding assessments to determine potential climate change impacts for individual KBAs and developing and mainstreaming action plans that build resilience. It will seek to leverage climate change funding from other donors to implement resiliency plans.

1.2 Facilitate the establishment and expansion of indigenous, private, and subnational reserves, and multi-stakeholder governance frameworks for conserving unprotected and partially protected KBAs.

This investment priority will target the 32 priority KBAs that are currently unprotected or only partially protected. Funding will be available to advance stakeholder consultations, technical and legal processes, and outreach to achieve designation of subnational, indigenous, communal, private and municipal reserves or other protected area designations to promote conservation. Particular attention will be given to sites where there is already a commitment to advance protection by local governments and stakeholders. In conjunction with the establishment of new protected areas, CEPF will encourage development of management plans and mechanisms for collaborative decision-making (*e.g.,* protected areas committees) and participatory management arrangements.

1.3 Strengthen land tenure, management, and governance of indigenous and Afro-descent territories.

Many priority KBAs overlap or adjoin indigenous or Afro-descendant territories, with communities directly dependent on natural areas for their livelihoods. CEPF will support indigenous and Afro-descent groups in their efforts to strengthen protection and management of priority KBAs in ways that contribute to conservation and to human well-being. CEPF will support actions to strengthen and clarify traditional tenure and territorial rights, develop life plans ("*planes de vida")* incorporating biodiversity components and implementing targeted activities, help set aside sites for preservation, and strengthen mechanisms for collaborative decision-making and participatory management.

1.4 Catalyze conservation incentives schemes for biodiversity conservation for local communities.

CEPF will catalyze approaches that provide direct incentives to local communities for the conservation of biodiversity. CEPF will facilitate processes for communities to apply for, receive

and remain in conservation incentive programs such as *Socio Bosque*. To help expand the benefits from these schemes, CEPF will support civil society to work with communities to establish and maintain conservation incentive programs. Activities will include community outreach and capacity building, management planning and execution, and collaborating with public agencies responsible for the schemes to facilitate community access.

Strategic Direction 2. Mainstream biodiversity conservation into public policies and development plans in seven corridors to support sustainable development, with a focus on subnational governments.

The governance of natural resources in the Tropical Andes has increasingly been decentralized to sub-national governments at the provincial, departmental, state, and municipal levels. Innovative experiences involving multiple stakeholders in land-use planning, some supported previously by CEPF, are serving as useful models for participatory governance that can be expanded and replicated. CEPF recognizes the importance of integrating biodiversity considerations into land-use and development planning, implementation and monitoring, and will support actions geared toward providing better information, effective outreach and policy support. Given the threat of climate change, maintaining connectivity in corridors is of critical importance for ensuring resilient ecosystems.

Furthermore, securing long-term, public-sector funding for conservation remains a significant challenge for many corridors. Fortunately, new opportunities are emerging that show potential for funding biodiversity conservation and sustainable resource management. Public and international financing for agriculture, disaster prevention, climate change, tourism and infrastructure development are potential sources for conservation funding. Innovative mechanisms are needed to dramatically increase public and private-sector support and/or redirect existing sources towards biodiversity-compatible development.

2.1 Support land-use planning and multi-stakeholder governance frameworks that create shared visions for integrating biodiversity conservation and ecosystem services into corridor-level development.

CEPF will support civil society collaboration with governments and other stakeholders to create the planning and governance frameworks necessary for conservation to take place at the landscape scale in the seven priority corridors. Grants may support activities such as developing and applying land-use zoning or territorial planning, supporting capacity-building exercises, building consensus and coordination among diverse stakeholders around these processes, and assisting in the creation of legal mechanisms (*e.g.,* ordinances, decrees) that formalize these commitments. CEPF will encourage the integration of climate change adaptation, the KBAs and IUCN Red Listed species into these efforts.

2.2 Integrate biodiversity objectives into development policies, programs and projects that impact resource use, including climate change, agricultural development and water resources management.

Rural development programs that depend on environmental quality (*i.e.,* water resources management, climate change, natural disaster prevention, agriculture and public health) present important opportunities to create synergies and to leverage benefits for human welfare and biodiversity conservation. To forge stronger linkages between biodiversity conservation and these

development programs, CEPF will support technical assistance and outreach to policy makers and program managers to help integrate biodiversity considerations into public programs shaping the land use in the corridors. Activities may include information generation, technical assessments, capacity building, and strategy development dedicated to integrating the conservation outcomes into rural development policies, direct outreach and information dissemination to decision-makers, and support for public consultation as these policies and programs are designed and implemented. Efforts may also include outreach to the donors of these programs to adopt guidelines favorable to biodiversity conservation.

2.3 Promote traditional and innovative financial mechanisms for conservation, including payments for ecosystem services, leveraging of rural and micro-credit, mainstreaming biodiversity into public climate change programs, and compensation mechanisms to mobilize new conservation finance.

CEPF will seek to mobilize new commitments from subnational and national governments to focus more equitably and strategically on the high-priority and under-resourced KBAs and corridors. CEPF will collaborate with the Andean environmental trust funds, national conservation incentive programs, and forest carbon initiatives to leverage funding. Collaboration in the form of information sharing and development of investment co-strategies will be sought. CEPF will also seek to mainstream the conservation outcomes into payments for ecosystem services, particularly for water resources, and for adaption and mitigation climate change funding, to focus on outreach to those stakeholders and donors funding climate change plans, policies and projects. CEPF will also encourage grantees to leverage CEPF-funded climate change adaption and resilience activities.

CEPF will also focus on integrating the conservation outcomes in existing rural credit schemes, creating biodiversity-friendly microcredit vehicles, green bonds that deploy capital for rural investments and compensation and payment-for-ecosystem services mechanisms. CEPF may provide support for initiatives bringing together private sector, CSOs and governments to analyze, design and generate multi-stakeholder commitment to these sorts of innovative mechanisms. CEPF will foster partnerships and support the design of these mechanisms with an emphasis on the highest priority KBAs. CEPF cannot provide funding specifically to capitalize trust funds or make incentive payments. Key activities for CEPF grants may support stakeholder engagement, design and establishment of financial mechanisms, planning and prioritization of financing needs for KBAs, design and implementation of fundraising strategies and support to local stakeholders to access and maintain funding from existing financing mechanisms. CEPF will also support dissemination of experiences from successful cases and efforts to leverage interest in CEPF priorities from other donors and funding sources.

Strategic Direction 3. Promote local stakeholder engagement and the integration of social and environmental safeguards into infrastructure, mining and agriculture projects to mitigate potential threats to the KBAs in the seven priority corridors.

Given the potential of large mining, infrastructure and agriculture projects to permanently degrade habitat and environmental quality in the KBAs and conservation corridors, CEPF will dedicate a separate strategic direction to integrating social and environmental safeguards into these projects. Effective engagement of informed stakeholders at all stages of infrastructure and extractive industry development is essential to avoid, mitigate, and compensate for the negative impacts, with proactive integration of biodiversity consideration more likely to reduce conflict and avoid grave

impacts over the short and long run.

Given the region's reliance on infrastructure and extractive industries, models already developed for integrating local participation and environmental and social safeguards, some through CEPF support, need to be replicated. Information on the economic, environmental, and social benefits of stakeholder participation and safeguards integration can help build constructive approaches to ensure the sustainability. Working with key stakeholder groups to encourage the social and environmental sustainability of those projects that directly and indirectly impact the KBAs and relevant ecosystem services will be a high priority for CEPF.

3.1 Build local capacity and facilitate public consultation and alliance building in the assessment, avoidance, mitigation and monitoring of environmental impacts of large development projects that pose a direct or indirect risk to the KBAs.

Local communities and civil society organizations are important stakeholders that often lack basic knowledge of the potential impacts of large development projects as well as experience in engaging constructively with the planners and implementors of these investments. CEPF will work with local civil society groups to help them and their constituency play a meaningful role in the design, implementation and monitoring of the projects that impact their communities and ecosystems. A high premium will be placed on ensuring strong community engagement by funding capacity building, constructing multi-stakeholder dialogue and processes, and supporting community and third-party monitoring of environmental and social impacts of these projects. Funds may be channeled to help local organizations actively engage in environmental impact assessment processes, including the identification of potential impacts and negotiations to avoid and/or mitigate them. Ensuring that the provisions of the impact assessments are implemented and monitored during and after the construction of the project will also be critical to avoid any unplanned impacts.

3.2 Encourage constructive approaches to promote environmental and social sustainability of infrastructure, mining, and agriculture projects through partnerships between civil society groups, the private sector, and international investors.

CEPF will encourage collaboration with the private sector to help integrate environmental and social safeguards and sustainability into large-scale mining and infrastructure development that have direct and indirect impacts strategic sites in the corridors. CEPF will support the analysis and dissemination of information to ensure that the KBAs and corridors are not threatened by incompatible development. It also may help generate information on the economic, environmental and social benefits of stakeholder participation and safeguards integration to promote constructive approaches to ensure the sustainability. Civil society groups may work directly with private companies to help conceptualize, design, implement and monitor actions to avoid, mitigate and compensate for environmental and social impacts. Examples of efforts to be promoted may include setting aside corridors of natural habitats in mining areas and along roads, controlling access points to prevent colonization on fragile lands, and carefully managing run-off and waste into groundwater and rivers.

3.3 Integrate biodiversity objectives into development policies, programs and projects related to mining, infrastructure and agriculture.

The role of government in overseeing the development, financing and implementation of infrastructure projects is critical to environmental and social sustainability. To assist with

integrating biodiversity considerations into planning such works, CEPF may support technical assistance in a variety of ways, including analysis to identify the potential environmental and social impacts and their costs/ benefits of individual projects, to guidance to develop and disseminate best practices in integrating conservation and social considerations into planning, implementing and monitoring these projects. CEPF may also support multi-stakeholder dialogue to ensure participation in the development of such projects, policies or programs.

Strategic Direction 4. Promote and scale up opportunities to foster private sector approaches for biodiversity conservation to benefit priority KBAs in the seven corridors.

The seven corridors that encompass the priority KBAs are interspersed with multiple-use productive agricultural and forest landscapes under diverse ownership, which makes the private sector a critical stakeholder in determining land use. Furthermore, the private sector is increasingly at the forefront of stimulating environmental and social sustainability. Private sector voluntary mechanisms, such as certification and responses to market incentives that require social and environmental sustainability standards in the Andes, Europe, Japan, and the United States are creating important opportunities for the kinds of socially responsible conservation projects that CEPF partners can deliver. Beyond individual initiatives, greater attention is needed to integrate biodiversity considerations within private sector activities to scale, so that environmental and social sustainability are built into the common practice of large segments of the private sector. Demonstration projects and the dissemination of successful efforts in the hotspot and other countries can raise awareness within Andean firms of potential options to pursue. Piloting, commercializing, and scaling up products compatible with conservation in the KBAs can help guide a more sustainable development path for the Andes. Ramping up and leveraging private sector engagement and funding for biodiversity represents a key opportunity to support sustainable land-use practices.

4.1 Promote the adoption and scaling up of conservation best practices in enterprises compatible with conservation to promote connectivity and ecosystem services in the corridors.

CEPF will also support civil society organizations working in KBAs and their buffer zones on those enterprises that provide direct benefits for conservation and/or demonstrate the reduction of threats directly impacting the KBAs. The focus will be on land uses that represent both key drivers of biodiversity loss and important opportunities for improvement; agroforestry systems such as coffee; and innovative conservation-based products and enterprises that demonstrate social and economic benefits and build resilience to climate change. Grants may support civil society organizations to work with rural producers, associations or extension agencies to develop and disseminate technologies and best practices. CEPF may also help to build voluntary commitments to sustainable production and to improve market access and links for biodiversity-compatible products. CEPF will also support civil society organizations working with exemplary and promising ecotourism initiatives that include effective mechanisms linking revenues and benefits for local communities.

4.2 Encourage private sector partners and their associations to integrate conservation into their business practices and to implement corporate social responsibility policies and voluntary commitments.

CEPF will support civil society partners that work directly with those strategic companies and

industries and their associations that have a presence in the corridors and that are committed to developing and fulfilling guidelines, standards, and policies that include biodiversity objectives. Areas of particular focus may include agriculture, forestry and tourism.

CEPF may fund efforts to raise awareness and understanding of corporate leaders and technical staff of effective approaches to incorporate biodiversity conservation considerations and opportunities. Facilitating dialogue, disseminating successful approaches and best practices, and assisting in the implementation of improved environmental practices are among the activities eligible for CEPF support. Within strategic industries, CEPF will support technical assistance to integrate biodiversity conservation into business and production practices, strategies and policies.

At a site level, CEPF may also work with private sector to help plan and implement demonstration projects where co-financing is available and where potential to scale up exists. CEPF will facilitate civil society, communities and landowners to take advantage of new opportunities for sustainably sourced products and other initiatives based on sustainable resource management to benefit biodiversity.

4.3 Leveraging private-sector financing schemes, such as carbon projects and green bonds that benefit the conservation outcomes.

The Tropical Andes remains an attractive venue for private sector funding in several respects. Several models have been tested in the hotspot, including forest carbon projects that hold promise for replication and scaling up. In addition, green bonds are emerging internationally as another financing modality for environmental protection. CEPF will co-finance the preparation and marketing of carbon project proposals to include required technical studies, capacity building to local stakeholders, and marketing to private-sector buyers, to attract financing for forest management, conservation and income generation to benefit the CEPF conservation outcomes. CEPF will also help to introduce innovative financing tools, such as green bonds, to explore opportunities for adoption. CEPF will invest in those areas that can demonstrate that key local governance conditions are in place for success.

Strategic Direction 5. Mainstream conservation action plans and outcomes to safeguard globally threatened species.

The ecosystem profile demonstrates that remarkably limited funding is available for species-level conservation from national and international donors. Landscape-scale approaches to conservation, as well as engagement in political processes and the private sector aimed at drivers of habitat destruction, are addressed by other strategic directions. However, addressing other threats, such as the spread of the chytrid fungus for amphibians, and supporting population recovery plans remain high priorities not considered elsewhere in the investment strategy. The ecosystem profile also reveals major information gaps that fundamentally limit understanding of the state and location of the Tropical Andes' threatened species and habitats. For instance, while the Andes ranks number one for plant diversity, very little has been assessed for the taxonomic group. Because reptiles and freshwater species are only being assessed in 2014 and 2015, the conservation outcomes do not consider these taxonomic groups or their habitats. Ensuring a more robust baseline for biodiversity conservation is essential, particularly in those sites where large-scale development projects are planned.

This strategic direction responds to these priorities by focusing on IUCN Critically Endangered or

Endangered species and on high-priority information gaps. Emphasis will be put on addressing the highest priority data gaps considered essential for conservation prioritization, planning, implementation, and monitoring. Emphasis will also be placed on mainstreaming the products of this strategic direction into public policies and programs, in recognition of the limited impact that CEPF alone can have in light of the large need.

5.1 Prepare, help implement, and mainstream conservation action plans for the priority Critically Endangered and Endangered species and their taxonomic groups.

To achieve species outcomes, CEPF will support the development and implementation of conservation plans that focus on the 171 Critically Endangered and Endangered species found in the priority corridors (Table 12.4; see species listed with an asterisk in Appendix 4). Special emphasis will be put on conservation measures where habitat protection alone is insufficient to safeguard a species. For amphibians, CEPF will support the protection of remnant populations of species that have suffered population declines, and the introduction of biosecurity measures to prevent the spread of chytrid fungus to at-risk amphibian populations. Compelling projects that link actions across multiple sites to achieve landscape-scale results will be encouraged. To increase the availability of sustainable funding, CEPF will support efforts to institutionalize and leverage financing by backing the adoption of species conservation strategies in subnational and national conservation priorities, conducting outreach to government decision-makers and donors, and developing fundraising strategies and creative approaches to engage the private sector.

5.2 Update KBA analysis for mainstreaming to incorporate new AZE sites and Red Listing of reptiles, freshwater species and plants based on addressing several high-priority information gaps.

CEPF will seek to address the highest priority data gaps considered critical for conservation prioritization, planning, implementation and monitoring. A high premium will be put on mainstreaming the products of this investment priority into subnational and national conservation plans and strategies.

CEPF will support alliances to digitize existing biodiversity data sets, including digital range information, and making it publicly available to inform future prioritization exercises and relevant environmental policy. CEPF will also support efforts to assess priority plant groups that occur in the hotspot, using the IUCN Red List categories and criteria at the global, not national, level. Priority plant groups will be those that reach their center of diversity in the hotspot and are strong indicators of ecosystem health for the Andes' unique habitats. Among the groups to be considered for Red Listing include those characterizing the high-elevation vegetation such as the iconic, highly endemic and endangered frailejones (*Espeletia*), members of the heath family (Ericaceae), pineapple family (*Puya*), cushion plants (*Azorella*) and other páramo and puna species.

CEPF will respond to the challenge of having large data gaps by supporting the development of a strategy to prioritize those locations that have limited or no field inventory work, but where conditions are favorable for high biological values and where existing or impending threats are severe enough to put species at risk of extinction. Such sites exist mostly in Peru and Bolivia.

CEPF will update the KBAs of Tropical Andes Hotspot to incorporate newly available data on new sites, the IUCN Red Listing of reptiles, freshwater and plant species, and new AZE sites identified in Peru. CEPF will support efforts to standardize KBA delineation and nomenclature, including

elimination of overlaps and revision to comply with forthcoming new IUCN KBA standards. It will be of paramount importance to ensure this information is disseminated to subnational and national decision-makers for mainstreaming.

Strategic Direction 6. Strengthen civil society capacity, stakeholder alliances and communications to achieve CEPF conservation outcomes, focusing on indigenous, Afro-descendent and mestizo groups.

Andean civil society groups, particularly those sited locally in the KBAs and corridors, universally report the importance of strengthening their management, administration and fundraising in order to improve their viability and effectiveness over the long term. Many local and national civil society groups face significant budget shortfalls that limit their ability to serve as local and national environmental champions for globally important sites, corridors, and countries. Those civil society groups representing indigenous and Afro-descendent groups and their governing councils face significant capacity shortfalls that limit their ability to manage and sustainably develop the territories they govern, which collectively cover more than half the hotspot.

Civil society groups also often face fragmented and/or difficult access to basic information, knowledge and experience as they attempt to deal with common threats and challenges outside of local or national settings. Collaboration and communications across national boundaries are virtually non-existent across the hotspot. Stakeholders also underscored the need for their improved capacity in communications to increase their effectiveness. The kind of progress sought by CEPF in its investment strategy requires innovative thinking and effective communications approaches that can get environmental messages out beyond the conservation community, to decision-makers, the private sector, and the public more broadly.

6.1 Strengthen the administrative, project management and fundraising capacity of civil society organizations and indigenous and Afro-descendent authorities to promote biodiversity conservation in their territories.

CEPF will help strengthen those organizations that have an important role to play in achieving CEPF's strategic directions by supporting holistic, organization-wide approaches to build institutional capacity rather than directing funds toward selected staff and their capacity needs. In addition, CEPF will dedicate funding specifically to those indigenous and Afro-descendent authorities who play a strategic role in achieving CEPF's investment strategy, by supporting organizational-wide institutional building that will allow these authorities to promote the sustainable development of their lands and to achieve financial sustainability. Capacity-building packages will be based on the CEPF civil society tracking tool. Investments may support the development of an organizational strategic plan, strengthening financial management systems, and preparation and implementation of a fundraising strategy.

6.2 Enhance stakeholder cooperation, networking and sharing of lessons learned to achieve CEPF's conservation outcomes, including efforts to foster hotspot-wide information sharing.

Cutting across all the strategic directions, CEPF will support multi-sectoral collaboration through the establishment and strengthening of alliances dedicated to conserving one KBA, a cluster of KBAs or an entire corridor with a view toward developing and implementing conservation strategies. In addition, CEPF will support information-sharing networks dedicated to thematic priorities within the investment strategy, such as infrastructure development, ecosystem services, sustainable financing, species conservation, or environmental communications. CEPF will put a

special emphasis on catalyzing cost-effective, hotspot-wide networking and collaboration among civil society, to also include groups from Argentina, Chile and Venezuela**.**

6.3 Strengthen communications capacity of CEPF partners to build public awareness of the importance of the conservation outcomes.

CEPF will improve communications capacity of Andean civil society to support the achievement of the strategic directions. Opportunities may include training exercises to engage with various media outlets, development of communications tools to benefit the Andean conservation community, and networking between CEPF partners and journalists covering the KBAs, corridors, and relevant thematic priorities. CEPF will also support innovative communications approaches, for example through the use of social media, to reach new audiences. Leveraging existing resources and building partnerships with local, national, and international media, journalists, and public relations firms will be strongly encouraged.

6.4 Pilot and scale up promising approaches for the long-term financing of local and national civil society organizations and their conservation missions.

CEPF will help pilot and scale up new approaches to secure diversified and sustainable funding sources for those organizations working in the priority KBAs and corridors, to reduce their dependency on international funding. Efforts may include marketing sustainably produced products and services, building memberships, crowd sourcing on the Internet, sponsoring special fundraisers, and expanding alliances with the private sector, development foundations and wealthy individuals.

Strategic Direction 7. Provide Strategic Leadership and Effective Coordination of CEPF Investment Through a Regional Implementation Team

CEPF will implement its grant program in close collaboration with a Regional Implementation Team (RIT) to be located in the Tropical Andes Hotspot. The RIT will help promote and manage grant-making process, undertake key capacity-building, maintain and update data on conservation outcomes. It also will provide leadership to promote the overall conservation outcomes agenda to government and other stakeholders. The detailed terms of reference for the RIT can be found on CEPF's website: www.cepf.net.

7.1 Operationalize and coordinate CEPF's grant-making processes and procedures to ensure effective implementation of CEPF's strategy throughout the hotspot.

Guided by the CEPF investment strategy, the RIT will work closely with the CEPF Secretariat to support grantees through CEPF's grant-making processes for both large and small grants. For large grants (over $20,000), the RIT will assist grantees and the CEPF Secretariat in receiving and processing grant applications, ensuring compliance with CEPF policies, and facilitating on-time and accurate grantee and portfolio reporting and monitoring. The RIT leads the solicitation of proposals and their review, from sending out calls for proposals to establishing review committees to making final recommendations. It also reporting and monitoring, including data collection on portfolio performance, ensuring compliance with reporting requirements, ensuring that grantees understand and implement safeguards policies, and reviewing reports. It also includes visits to grantees and follow-up capacity building for effective project implementation.

The RIT will manage CEPF's small grants (less than $20,000), including budgeting, processing proposals, and drafting and monitoring contracts. Small grants play an important role in the CEPF portfolio. These grants help fulfill the strategic directions, to serve as planning grants and to engage local and grassroots groups that may not have the capacity to implement large grants.

At the same time, the RIT will develop as needed collaborative arrangements with government departments, universities and other organizations that have responsibilities or resources important to the overall implementation of the program. Coordination with other grant-making may also create opportunities for joint grant making or capacity building.

7.2. Build a broad constituency of civil society groups working across institutional and political boundaries toward achieving the shared conservation goals described in the ecosystem profile.
The conservation outcomes identified in the ecosystem profile are well aligned with conservation goals and vision of the Andean conservation community. The RIT is in a unique position to help steward that vision forward, to bring CSOs, the government, and the private sector together to work seek common objectives and to work collaboratively in achievement of the ambitious goals of this profile.

7.3 Engage governments and the private sector to mainstream biodiversity into policies and business practices.
The RIT will support civil society to engage with government and the private sector and adopt their results, recommendations, and best practice models. The RIT will engage directly with private sector partners and ensuring their participation in implementation of key strategies. It also includes facilitating the creation or strengthening of conservation-oriented networks. Action to improve policies, projects, and programs for specific KBAs and corridors is covered in the preceding strategic directions. In addition to these site-, species- and locality-specific actions, CEPF and the RIT will seek opportunities to promote conservation outcomes as an agenda for conservation in the hotspot at national and regional levels. Engagement with major conservation organizations and international agencies working in the hotspot should aim to mainstream conservation outcomes into their strategies and programs. International groups and agencies managing global datasets on conservation, such as IUCN, WCMC, and the CBD secretariat, also need to be kept informed of changes and improvements in the definition of conservation outcomes. Finally, national and international networks of private sector companies, certification authorities, and industries will also be engaged.

7.4 Monitor the status of biogeographic and sectoral priorities in relation to the long-term sustainability of conservation in the hotspot.
In parallel with the collection of additional data for specific conservation objectives by grantees, the RIT or other appropriate entities will monitor the overall status of KBAs and corridors to assess the impacts of the program provide information for conservation planning. Monitoring of land use change using satellite images is increasingly near-real-time and efficient (e.g. with the Global Forest Watch II). However, for impact on decision making, it is also important to use officially recognized data sources. Monitoring of this information, plus information on civil society, sustainable financing, the enabling environment, and responsiveness to emerging issues, will help CEPF report on the overall health of the hotspot and the need for continued donor engagement in the region.

7.5 Implement a system for communication and disseminating information on conservation of biodiversity in the hotspot.

The RIT will create a mechanism for the dissemination of monitoring results into government agencies and NGO networks, in conjunction with appropriate grantees. This should be aligned with official land-use-change monitoring. It will start first by disseminating the ecosystem profile, and serve as a node for future information exchange for stakeholders involved in conservation in the region.

13. CONSERVATION RESULTS AND SUSTAINABILITY

Success for CEPF will be defined at the end of the investment period when each of the seven corridors has made meaningful progress toward instituting those enabling conditions required for biodiversity and ecosystem services to be well conserved for the long term, in support of a sustainable path of economic development of the Tropical Andes Hotspot. Through the investment strategy, CEPF will seek to achieve the following conservation results:

- The 36 priority KBAs will be under improved management. Sixteen protected areas within the KBAs will possess improved management capacity and have incentive schemes in place for community support of biodiversity conservation to ensure current and future threats can be mitigated. Five KBAs that currently lack legal protection will be under a form of legal land management designation that is compatible with conservation. Eight indigenous or Afro-descendent territories will have the planning frameworks and management and governance capacity in place to support improved community well-being and biodiversity conservation. Conservation incentive schemes will be demonstrated and scaled up for at least 100,000 hectares. As a result of these efforts, the level of threat will be reduced in nine KBAs by the end of the investment period.

- Successful models will have been piloted and scaled up to mainstream conservation and sustainable development into private sector initiatives. At least three industries associated with extractive industry, infrastructure, and agriculture that directly or indirectly impact the KBAs will have integrated participatory approaches to project design, implementation and monitoring to incorporate social and environmental safeguards. At least three enterprises that are compatible with conservation will have been at piloted and/or scaled-up to offer local communities living in or near priority KBAs opportunities for income generation.

- Three subnational governments will have consensus-based land-use plans, policies and capacities in place to guide decision-making in support of economic development that is compatible with biodiversity conservation. Adaptation to climate change for ecosystems will be mainstreamed into these plans.

- The public and decision-makers will have sufficient awareness of, and support for, biodiversity conservation and the protection of natural capital to support mainstreaming of conservation outcomes. Five of media outlets will have better capacity to report on the importance of species, protected areas and ecosystem services.

- Communities located around the 36 priority KBAs will have sufficient capacity to manage their land for biodiversity conservation and sustainable development, including at least eight indigenous or Afro-descendent territories.

- Mechanisms to ensure financial sustainability will be in place to ensure that CEPF results endure beyond the investment period. At least three financing mechanisms or programs will integrate biodiversity conservation and priority KBAs into their programming. CEPF will have introduced at least five innovative financing mechanisms for its civil society

partners.

- At least 50 NGOs and civil society groups will have improved institutional capacity to achieve conservation outcomes. Andean conservation groups will have the capacity for hotspot-wide networking and information exchange, for meaningful collaboration on common priorities, and for ensuring their own financial sustainability.

- At least 25 Critically Endangered or Endangered species will have conservation action plans that are developed, in implementation, and adopted by a government entity or other donor to ensure sustainability.

Sustainability

CEPF will fund activities in the Tropical Andes Hotspot over a five-year period, but aims to ensure lasting achievements in biodiversity conservation. Ensuring the positive, long-term impact of this investment has been a key consideration in the definition of strategic directions and investment priorities. Sustainability of CEPF support requires both that specific interventions funded be socially, politically and ecologically sustainable, and that activities supported be economically viable in the long term. The former requires that strategic directions and investment priorities integrate sustainability considerations into the cycle of project support. The latter requires that financial sustainability and mechanisms for long-term funding be key points of emphasis for CEPF in the hotspot across its activities.

Several mechanisms will contribute to sustainability of CEPF investments:

- *Institutionalization*. Having conservation written into policy frameworks and development plans can have lasting impact long beyond a specific project or investment. Translating these formal pronouncements into real results requires a complement of one or several of the other key factors listed below.

- *Commitment and social license*. Conservation is obviously not a sectoral outcome determined solely by the environmental community. It requires a level of commitment from key stakeholders, including active support from advocates and beneficiaries of conservation as well as what has come to be known in other sectors.

- *Benefits*. Building commitment and social license also requires realizing benefits from conservation. Conservation usually involves significant costs and trade-offs. Identifying and maximizing opportunities for both conservation gains and other social and economic objectives is a key consideration.

- *Capacity*. Achieving and insuring conservation gains for the future will depend on solid institutional capacity. CEPF will contribute directly to building that capacity through some training activities, multi-stakeholder dialogue and technical support from civil society organizations. CEPF will support organizations to enhance their institutional capacities—both technical and managerial—to remain effective advocates and executors of conservation actions.

- *Long-term financing*. Conservation is only rarely profitable in and of itself. Creative long-term finance from public, private and philanthropic sources is needed to sustain many conservation initiatives, especially management of protected areas. CEPF will emphasize opportunities where its finance can leverage and create the conditions for long-term financial commitments.