**Region: Andes & Amazon**

Countries included: Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, & Suriname

**Biodiversity and Global Environmental Benefits Regional Highlights:**

|  |  |
| --- | --- |
| Country | Country-level biodiversity significance |
| Bolivia | * Bolivia is among the most biodiverse countries in the world, home to 6 percent of all species in the world.[[1]](#footnote-0) With a high level of genetic diversity, Bolivia’s endemic species represent just less than a quarter of their market exports.[[2]](#footnote-1) Bolivia is split into 12 ecoregions, subdivided into 23 sub-ecoregions. Bolivia’s ecoregions are diverse and include Amazonian-flood forests, mountainous areas, grasslands, various (semi-)deciduous, dry, and evergreen forests; positioned throughout the country’s varied altitudes.[[3]](#footnote-2) * Key Biodiversity Areas within the country are protected at a rate greater than the global average, 56.23 to 44 percent, respectively. Large KBAs outside of Protected Areas (PAs) are found on state and district borders to the East and North and include: [Este de Río Mamoré](http://www.keybiodiversityareas.org/site/factsheet/23874), [Lago Titicaca (Sector Boliviano)](http://www.keybiodiversityareas.org/site/factsheet/14364), [Tahuamanu](http://www.keybiodiversityareas.org/site/factsheet/14372), and [Lagunas Rogaguado y Ginebra](http://www.keybiodiversityareas.org/site/factsheet/14397). PA protection of KBAs has slowly risen from 2000, from 50.02 percent. * The central corridor of Bolivia, or the Yungas ecoregion is of critical importance, with a concentration of 35 percent of diversity, comprising only 4 percent of the total country area. The regional importance is matched in terms of range-size rarity, with a conservation hotspot throughout the corridor. * Stores of irrecoverable carbon are concentrated in the mountainous and forested corridors of the North and East. * From 2001 to 2018, Bolivia lost 4.83Mha of tree cover, equivalent to a 7.5 percent decrease in tree cover since 2000, and 1.53Gt of CO₂ emissions. In Bolivia, the Santa Cruz region was responsible for 65 percent of all tree cover loss between 2001 and 2018. This region had the most relative tree cover loss at 10 percent compared to an average of 4.4 percent. * The primary land cover types are Forest - 57.4Mha; Shrubland - 17.6Mha; Bare - 9.31Mha; Grassland - 8.92Mha; Agriculture - 8.24Mha; and Sparse vegetation - 7.40Mha * Bolivia is home to 11 Ramsar sites with additional context [here](https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-Bolivia-Plurinational-State-of.pdf?1589474344). * Bolivia is landlocked and thus has no marine data. |
| Brazil | * Brazil is the most biologically diverse country in the world, and second in terms of species endemism. There are two biodiversity hotspots: the Atlantic Forest and Cerrado. Brazil is classified by six terrestrial biomes (Amazon Forest, Atlantic Forest, Savanna, Semi-Arid, Pantanal wetland, and South Grassland) and three large marine ecosystems. Brazil is home to the largest continuous stretch of mangroves, covering 1.3 Mha, and the only reef environment in the South Atlantic. Ecosystem diversity is found among the country’s various forests, savannas, grasslands and floodplains.[[4]](#footnote-3) * Key Biodiversity Areas within the country are protected at a rate slightly greater than the global average, 47.81 to 44 percent, respectively. Large KBAs outside of Protected Areas (PAs) are found throughout the country, with concentrations in the States of Amazonas, Mato Grosso, Mato Grosso Do Sul, Para, and Tocantins and include: [Alto Rio Juruena](http://www.keybiodiversityareas.org/site/factsheet/23424), [Rios Negro e Aquidauana](http://www.keybiodiversityareas.org/site/factsheet/22239), [Pantanal de Nabileque](http://www.keybiodiversityareas.org/site/factsheet/22238), and [Rio Capim](http://www.keybiodiversityareas.org/site/factsheet/22245). PA protection of KBAs has risen from 2000, from 37.79 percent. * Ecosystem prioritization has been conducted by various partners in the region, as well as the Brazilian government over the past two decades. Efforts just before 2003, and again in [2007](https://www.mma.gov.br/estruturas/chm/_arquivos/Prioritary_Area_Book.pdf) identified the majority of priority areas for biodiversity conservation (PABCs) first in the Amazon and then along the entire extent of Brazil’s EEZ, respectively.[[5]](#footnote-4) Further efforts in 2013 for the [Atlantic Forest](http://www.terrabrasilis.org.br/ecotecadigital/images/49%20bio.pdf) and again in 2015 have attempted to discern which areas are of highest priority within PABCs, producing the current prioritization [map](https://www.mma.gov.br/estruturas/chm/_arquivos/maparea.pdf) which outlines protected areas by level of importance, and highlights the co-location of Indigenous Territories (ITs) and PAs within this range.[[6]](#footnote-5) * Stores of irrecoverable carbon are concentrated in the North of the country, dominant in the Amazon along the Amazon River, and the Mangroves and Estuaries in the State of Amapá and Pará. * The primary land cover types are Forest - 410Mha; Agriculture - 222Mha; Shrubland - 160Mha; Grassland - 43.0Mha; and Wetland - 25.7Mha * Brazil is home to 27 Ramsar sites with additional context [here](https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-Brazil.pdf?1589476543). * Brazil ranks well below the global average of ocean health, particularly in terms of clean waters; however Brazil has excellent coastal protection and high carbon density due in part to the Mangrove in the State of Amapá and Pará. |
| Colombia | * Colombia is one of the world’s megadiverse countries, home to 10 percent of the world’s biodiversity. Colombia has a heterogeneous mixture of ecological, climatic, and biological systems. Colombia is also one of the world’s richest countries in aquatic resources, due in part to the watersheds that feed into the four massive sub-continental basins of the Amazon, Orinoco, Caribbean, Magdalena-Cauca and the Pacific. Ecoregions include: the Chocó, Caribbean plains, Amazon, the Orinoquia, Andees, Pacific Ocean, and Caribbean sea.[[7]](#footnote-6) * Areas of high biological diversity include the Andean ecosystems, Amazon rainforests, and Chocó biogeographical area. Colombia’s biodiversity and its functions provide direct goods and services to the region/world’s population; as well as many indirect services such as climate regulation, disaster prevention, soil formation, and water purification.[[8]](#footnote-7) * Key Biodiversity Areas within the country are protected at a rate below the global average, 38.8 to 44 percent, respectively. Large KBAs outside of/or partially within Protected Areas (PAs) are found throughout the country, with concentrations in the Departments of Caquetá, Bolívar, and Meta; and include: [Serranía de San Lucas](http://www.keybiodiversityareas.org/site/factsheet/14453), [Serranía de los Paraguas](http://www.keybiodiversityareas.org/site/factsheet/19104), [Delta del Río San Juan](http://www.keybiodiversityareas.org/site/factsheet/19149), [Orteguaza - Caquetá](http://www.keybiodiversityareas.org/site/factsheet/47122), and [Parque Nacional Natural Sierra de la Macarena](http://www.keybiodiversityareas.org/site/factsheet/14500). PA protection of KBAs has risen from 2000, from 24.59 percent. * Long-standing biodiversity or conservation prioritization areas in Colombia include the North and East of the country along the Tropical Andes and the Tumbes-Chocó-Magdalena hotspot. The regional importance is matched in terms of range-size rarity, with a conservation hotspot throughout these hotspots, with relatively low importance East of Villavicencio. These areas as well as other protected areas are moderately well representative of global and national conservation priorities (with a recommendation to expand protection in underrepresented biomes of Helobiomas Andinos, the Zonobioma alternohígrico y/o suxerofítico Tropical del Alto Magdalena, and the Zonobioma seco tropical del Caribe).[[9]](#footnote-8) In 2018, the Government of Colombia expanded the Puerto Córdoba, Comeyafú, and Camaritagua Indigenous reserves in the Amazonas Department by 45k Ha, strengthening the connectivity between Yaigojé Apaporis, Río Puré, Cahunarí, and Chiribiquete National Parks.[[10]](#footnote-9) This is an area of high conservation priority, as it includes the basins of the Puré, Mirití Paraná, and Apaporis rivers. * Stores of irrecoverable carbon are concentrated in the Southeast of the country, dominant in the Amazon as well as the Mangroves along the Southwest coast of the country. * The primary land cover types are Forest - 72.2Mha; Agriculture - 14.1Mha; Grassland - 14.1Mha; Shrubland - 8.04Mha; and Wetland - 4.15Mha. * Colombia is home to 27 Ramsar sites with additional context [here](https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-Colombia.pdf?1589484514). * Colombia ranks well below the global average of ocean health, particularly in terms of its sustainable food provision, protection of iconic species, and condition of marine habitats. |
| Ecuador | * Ecuador is one of the world’s megadiverse countries, home to 6.1 of species globally. Ecuador is split into four defined geographical zones: coast, mountain range, the Amazon, and the Galapagos Islands. Ecuador has 26 distinct habitat types, among these three are recognized as biodiversity hotspots: the humid forests of the Northwest, outside faces of the mountain range, and the Amazon forest of the Northeast. The Galapagos Islands are a self-contained ecosystem with a high level of endemism. In terms of range-size rarity, the center of the country, as well as Galapagos Islands are of high priority. * Key Biodiversity Areas within the country are protected at a rate well below the global average, 29.57 to 44 percent, respectively. Large KBAs outside of/or partially within Protected Areas (PAs) are found throughout the country; and include: [Río Conambo-Bobonaza](http://www.keybiodiversityareas.org/site/factsheet/14565)/[Territorio Achuar](http://www.keybiodiversityareas.org/site/factsheet/14571), [Cordillera de Kutukú](http://www.keybiodiversityareas.org/site/factsheet/14554), [Verde-Ónzole-Cayapas-Canandé](http://www.keybiodiversityareas.org/site/factsheet/14614), and [Territorio Étnico Awá y alrededores](http://www.keybiodiversityareas.org/site/factsheet/14550). PA protection of KBAs has risen from 2000, from 24.41 percent. * Prioritization efforts have identified conservation shortfalls concentrated in the Southern Andes, Central Amazonia, and the Central and Southern portions of the Coastal plain.[[11]](#footnote-10) Municipal governments in Ecuador have also recently partnered with CSOs and Indigenous Peoples to protect several watersheds in the province of Morona Santiago through the Huamboya Municipal Conservation Area. This increases connectivity to the network of Sangay National Park, Pastaza Provincial Reserve, and Río Upano Municipal Conservation Area. Prior conservation gap analysis by the Ministry of the Environment identified priority terrestrial and marine environments [(pg 28-29)](http://www.protectedareas.info/upload/document/ecuadormarinegapanalysissummary-english.pdf). * Stores of irrecoverable carbon are concentrated in the Southwest of the country’s coastline near Guayaquil, and in the Northwest near San Lorenzo and Valdéz. * The primary land cover types are Forest - 16.7Mha; Agriculture - 3.63Mha; Shrubland - 3.18Mha; Grassland - 966kha; Wetland - 436kha. * Ecuador is home to 19 Ramsar sites with additional context [here](https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-Ecuador.pdf?1589487716). * Ecuador ranks just below the global average of ocean health, performing poorly in terms of its sustainable food provision; however it has witnessed significant improvements in the last 5 years in mariculture. |
| Guyana | * Guyana is a high forest cover country, with approximately 85 percent of its land covered by forest. Forests in Guyana are classified as rainforest (36 percent), montane forest (35 percent), swamp and marsh (15 percent), dry evergreen (7 percent), seasonal forest (6 percent), and mangrove forest (1 percent). Given its size, Guyana has considerable species endemism, likely above 50 percent. The four main natural regions of Guyana include: Coastal Plain, Hilly Sand and Clay Region, Interior Savannas, and Forested Highlands. In terms of range-size rarity, the center West border with Venezuela is the key area of importance. * Guyana does not have mapped KBAs or PAs within the dataset. The PA network of Guyana encompasses 8.4 percent of the country’s landmass. Kanashen Amerindian Protected Area is Guyana’s newest and largest protected area was formally declared a protected area in 2017. The Kanashen Indigenous District, an area of 648k Ha home to the Wai Wai people, and is the only Indigenous-owned territory in the PA system. * National prioritization mapping efforts have found that less than half of all vertebrate species are represented within the PA network. To improve representativeness, and protect key areas, Guyana’s 6th National Report for CBD identified 20 priority areas split among: 750k in the highlands; >1 Mha in Southwestern grasslands; 660k Ha Northeast mixed grasslands, forests and wetlands; 200k Ha in Northwest wetlands; and 190k Ha in the southern forests, with the remaining distributed throughout the country.[[12]](#footnote-11) * Stores of irrecoverable carbon are more or less homogeneously distributed throughout the country’s high forest cover, Guyana’s coastline to the North also has high irrecoverable carbon stores. * The primary land cover types are Forest - 18.8Mha; Shrubland - 1.47Mha; Wetland - 389kha; Agriculture - 318kha; and Water - 102kha. * Guyana is not a signatory to the Ramsar Convention, and thus does not have Ramsar sites. * Guyana ranks below the global average of ocean health, performing very poorly in terms of its sustainable food provision and below baseline for artisanal fishing opportunities. Guyana has high carbon storage and coastal habitat conditions. Broadly the marine habitats of the Guianas (Guyana, Suriname and French Guiana) are highly productive. The high productivity is related to high diversity and abundance of marine species.[[13]](#footnote-12) |
| Peru | * Peru has both high marine and terrestrial biodiversity, largely due to the country’s complex geography and 16 biogeographical landscapes. Key contributing factors include the Peruvian Current and the Andes, which rise from sea level to the Cordillera Blanca, the tallest tropical mountain range in the world. Peru’s continental waters are divided into three major basins: Pacific, Amazon, and Titicaca. Key terrestrial landscapes are mountains, coastal hills located in the piedmont regions, rainforests, dry forests, as well as wetlands and moors. In terms of range-size rarity, the areas of importance are concentrated along the Cordillera and to the East of the Andes. * Key Biodiversity Areas within the country are protected at a rate likely below global average. Peru submitted in the 6th National Report to CBD that their 2021 national target of having 17 and 10 percent of terrestrial and marine sphere under various modalities of conservation and management.[[14]](#footnote-13) Given Peru’s varied approach, NatureServe lacks country-level statistics on Protected Areas Coverage. Large KBAs outside of/or partially within Protected Areas (PAs) are found throughout the country, with concentrations to the East of the Cordillera and offshore; and include: [Pacific, Southeast 24 - Marine](http://www.keybiodiversityareas.org/site/factsheet/30314), [Carpish](http://www.keybiodiversityareas.org/site/factsheet/14916), [El Molino](http://www.keybiodiversityareas.org/site/factsheet/24458), [Río Cajamarca](http://www.keybiodiversityareas.org/site/factsheet/24457) and [Between Balsa Puerto and Moyabamba](http://www.keybiodiversityareas.org/site/factsheet/26755). * National/Regional cost-effectiveness prioritization efforts funded by the Initiative for Conservation in the Andean Amazon (ICAA) and USAID have found that there are significant benefits for areas held by IPLCs. These areas are found [here](https://doi.org/10.1016/j.biocon.2019.04.022) and include areas outside of PAs. The largest areas adjacent to existing PAs include: the area between [Reserva Comunal El Sira](http://www.keybiodiversityareas.org/site/factsheet/14834) and [Parque Nacional Cordillera Azul](http://www.keybiodiversityareas.org/site/factsheet/14918); South of [Moyobamba](http://www.keybiodiversityareas.org/site/factsheet/14677) and to the East of [Laguna de los Cóndores](http://www.keybiodiversityareas.org/site/factsheet/24461); and to the [West of Reserva Nacional Pacaya Samiria](http://www.keybiodiversityareas.org/site/factsheet/14671). * Stores of irrecoverable carbon are concentrated along the Cordillera and to the East of the Andes, Peru’s coastline has little to no irrecoverable carbon stores. * The primary land cover types are * Forest - 78.1Mha; Grassland - 15.4Mha; Shrubland - 11.8Mha; Bare - 9.93Mha; Sparse vegetation - 6.14Mha; Agriculture - 4.77Mha; and Wetland - 3.91Mha. * Peru is home to 13 Ramsar sites with additional context [here](https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-Peru.pdf). * Peru performs below the global average of ocean health, primarily in coastal protection, and economies. Fishing is one of the most important sectors for Peru’s economy, and often is one of the primary fishing countries in the world. There is evidence species are being overfished (Peruvian Hake). Resource overexploitation was cited as a primary driver of marine biodiversity loss, as well as pollution and agricultural/urban development in the coastal zone.[[15]](#footnote-14) |
| Suriname | * Suriname is a high forest cover country part of the Amazon biome, with forests representing 94 percent of land. Suriname has seven ecosystems, marine (Atlantic Ocean, mud banks, sandbanks, mudflats), coastal (mangroves), brackish water (pans and lagoons), freshwater (swamps and open systems), savannah, marsh, inselbergs and tropical rainforests. Given the country’s rich landscape and biodiversity, the government has established a series of protected area schemes (protected areas, nature reserves, multiple use management areas, and a nature park) that comprise 13.5 percent of the country's land area. In terms of range-size rarity, there are few areas of importance, with a notable point in Para, Suriname. * Key Biodiversity Areas within the country are protected at a rate above the global average, 51.19 to 44 percent, respectively. Large KBAs outside of/or partially within Protected Areas (PAs) are found in four locations; and include: [Kabalebo / Arapahu](http://www.keybiodiversityareas.org/site/factsheet/23539), [North-West Suriname](http://www.keybiodiversityareas.org/site/factsheet/23540), [Lely mountain](http://www.keybiodiversityareas.org/site/factsheet/23538), and [Nassau mountain](http://www.keybiodiversityareas.org/site/factsheet/23537). PA protection of KBAs has remained stagnant from 2000, most recently changing from 38.52 percent in 1997. * Prioritization efforts led by VIDS (Association of Indigenous Village Leaders in Suriname) have identified a list[[16]](#footnote-15) of potential future Indigenous Peoples’ and Local Communities’ Conserved Territories and Areas (ICCAs), namely 3 Nanni and Kaboeri, which both are in the area enclosed by [North-West Suriname](http://www.keybiodiversityareas.org/site/factsheet/23540). Future requests in 2015 from the Trio and Wayana Communities have identified a need for a conservation corridor in Southern Suriname spanning 72k km2.[[17]](#footnote-16) Further prioritization/participatory mapping efforts by CI Suriname can be found [here](https://onlinelibrary.wiley.com/doi/10.1002/j.1681-4835.2013.tb00409.x). * Stores of irrecoverable carbon are more or less homogeneously distributed throughout due to the country’s high forest cover, the coastline to the North has higher stores of irrecoverable carbon (though lower in quantity) than inland Suriname. * The primary land cover types are Forest - 13.5Mha; Wetland - 682kha; Water - 242kha; Shrubland - 228kha * Suriname is home to 1 Ramsar site (Coppenamemonding Nature Reserve) with additional context [here](https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-Suriname.pdf). * Suriname ranks just below the global average of ocean health, performing very poorly in terms of its wild caught fisheries, indicating overfishing and resource exploitation. |

1. Sarmiento, J., R. Bigorne, F. Carvajal-Vallejos, M. Maldonado, E. Leciak y T. oberdorff. (Eds.). 2014. Peces de Bolivia/Bolivian fishes. IRD-BioFresh (EU). Plural editores, Bolivia. [↑](#footnote-ref-0)
2. <https://www.cbd.int/countries/profile/?country=bo#facts> [↑](#footnote-ref-1)
3. <https://www.cbd.int/doc/world/bo/bo-nr-05-es.pdf> [↑](#footnote-ref-2)
4. <https://www.cbd.int/doc/world/br/br-nr-05-en.pdf> [↑](#footnote-ref-3)
5. <https://www.scirp.org/journal/paperinformation.aspx?paperid=89223> [↑](#footnote-ref-4)
6. Table form: <https://www.mma.gov.br/estruturas/chm/_arquivos/tabmapa.pdf> [↑](#footnote-ref-5)
7. <https://www.cbd.int/doc/world/co/co-nr-05-es.pdf> [↑](#footnote-ref-6)
8. Ibid. [↑](#footnote-ref-7)
9. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0013210> [↑](#footnote-ref-8)
10. <https://www.andesamazonfund.org/news-blog/colombia-expands-three-amazonian-indigenous-reserves-by-113103-acres/> [↑](#footnote-ref-9)
11. <http://www.bosquesandinos.org/wp-content/uploads/2017/03/Priority-areas-for-biodiversity-conservation-in-mainland-Ecuador.pdf> [↑](#footnote-ref-10)
12. (Pg 87) <https://www.cbd.int/doc/nr/nr-06/gy-nr-06-en.pdf> [↑](#footnote-ref-11)
13. <http://d2ouvy59p0dg6k.cloudfront.net/downloads/living_guianas_report_2012_wwf_guianas_printversion.pdf> [↑](#footnote-ref-12)
14. <https://chm.cbd.int/database/record?documentID=241336> [↑](#footnote-ref-13)
15. <https://www.cbd.int/countries/profile/?country=pe> [↑](#footnote-ref-14)
16. Pg. 8 <https://www.cbd.int/pa/doc/ts64-case-studies/suriname-en.pdf> [↑](#footnote-ref-15)
17. <https://wwf.panda.org/?241222/Guardians-of-the-Forest-Indigenous-Peoples-Take-Action-to-Conserve-Nearly-Half-of-Suriname> [↑](#footnote-ref-16)