

AMAZONIA 2017

PROTECTED AREAS AND INDIGENOUS TERRITORIES

The Amazonia 2017 map published by RAISG (Amazon Georeferenced Socio-environmental Information Network) provides information on Protected Natural Areas (ANPs), Indigenous Lands (TIs) and deforestation.

This is the fifth version of the map first published in 2009 (and subsequently revised in 2012, 2015 and 2016), with updated data on protected areas and indigenous territories – which together cover 45.4% of the region and play a significant role in the conservation and sustainable use of Amazonian ecosystems. This publication is the result of ongoing collaboration by civil society organizations in the Amazonian countries, seeking to systematize, improve and integrate their databases to offer a comprehensive perspective on the Amazon.

With regard to previous versions of this map, this update presents information for the wider Amazon region to include, in addition to its tropical forest cover, the administrative Brazilian Amazon region (Amazônia Legal) and the Amazon hydrographic basin (see diagram on the right).

It is important to emphasize that, to develop a compatible cartographic representation for the different countries, the specificities of each needed to be considered. In the case of protected natural areas, information is classified in accordance with a common attribute, the use category, while indigenous territories are classified both according to specific national categories and to the existence (or otherwise) of some form of official recognition. Similarly, international boundaries were adjusted around a common base to avoid information gaps or overlaps.

Note: RAISG has chosen to retain country names in their national language in all versions of the map.

Changes resulting from the adoption of the new RAISG boundary and the updating of the protected areas and indigenous territories database

With this new map of Indigenous Territories (TIs) and Natural Protected Areas (ANPs), RAISG has expanded the area of its maps and analysis to include territories up to the watershed of the headwaters of Amazonian rivers. This will enable a comprehensive view of the Amazon River and its basin closely linked to the Andes, where melting of its glaciers gives rise to high Andean lakes and rivers that are the "springs" of important rivers that give rise to and are part of the dynamics of the great Amazon River. The objective is to be able to include information on the populations, landscapes and socio-environmental dynamics of the entire Amazon basin. This expansion represents an additional 622,334 km² with respect to the boundary previously used by RAISG, representing an 8% increase in area. Of this, 70,004 km² corresponds to ANPs and 84,209 km² to Tls. Additionally, in biogeographical terms, this area includes new biomes or ecoregions such as the Puna, Páramo, Andean Forest, Dry Inter-Andean Forest, Chiquitano Dry Forest, Cerrado, Chaco and Pantanal.

Similarly, the boundary expansion incorporates new indigenous territories of different peoples. It shows the importance of distinct ethnic groups of Andean peoples in Bolivia, Ecuador and Peru, all of whom have occupation and land management histories very different from the indigenous peoples of Amazonia. Additionally, in the lowland regions, other peoples who do not identify as "Amazonian" are included, particularly in Bolivia and Brazil. The incorporation of new indigenous territories in the Andean region implies the inclusion of new categories of indigenous territory, such as peasant communities in Peru and Ecuador, and Suyus, Markas, Ayllus and communities in Bolivia. The number of indigenous territories has increased by 1,862, due in large part to the boundary expansion, but also because for Ecuador the register of Amazonian indigenous territories is, for the first time, made by community and not by nationality as previously, which has led to a significant increase in the number of indigenous territories recorded.

As regards protected areas, the expanded area includes 87 additional ANPs, corresponding to the same categories used in previous versions of the map. However, within the biogeographic boundaries previously used, new ANP categories are included. This has occurred in the case of Colombia with its national and regional level Protective Forest Reserves, Natural Reserves of Civil Society (RNSC) and a Recreation Area. In Venezuela, areas corresponding to the categories of Forest Reserve and Biosphere Reserve not previously included, are now included.

The changes that have occurred in each country as a result of the expansion of the area and the update of the data to 2017 can be

BOLIVIA: with the expansion of the RAISG boundary, 81 new TIs with an area of 22,253 km² have been incorporated. Of these, 16 are lowland TIs belonging to the Guarayos, Chiquitanos, Ayoreodes and Ava Guarani peoples, with an area of 14,279 km². On the other hand, 65 TIs with an area of 8,074 km² are from highland peoples. In the TI data update, the titling of two polygons in the

As for protected areas, the new boundary includes 24 new ANPs with an area of 36,434 km², of which five are national, with an area of 19,335 km² and nineteen are departmental, with an area of 17,099 km². As regards new ANPs since the last version of the map in 2016, three new departmental level ANPs with an area of 15,679 km² are reported.

BRAZIL: the legal status of TIs is uniform throughout the country, with no distinction between different regions. It is however the case, due to the historical process of occupation of the territory, that outside the Amazon, TIs are much smaller. In the new area now included within the Amazonian boundary, there are five TIs totalling 405 km². Also included are the peoples that inhabit these lands: the Avá-Canoeiro, Iny Karajá and Tapuia, who do not self-identify as "Amazonian".

Regarding ANPs, the additional area includes 8 national level and 13 state level protected areas totalling 18,817 km².

There are no new ANPs since the last version of the map in 2016. There have been changes in the boundaries of the Flora do Jamanxin area (national) and the RESEX Guariba-Roosevelt (state). No new TIs have been officially recognized.

COLOMBIA: in Colombia the boundary has not altered but, in terms of categories under the national system of protected areas, the following categories of the Unified Registry of Protected Areas (RUNAP) have been added to the RAISG database: Protective Forest Reserve (national and regional), Natural Reserve of the Civil Society (RNSC) and Recreation Area. The total area of these new

ECUADOR: the expanded area includes five new Tls and the expansion of an existing Tl which together correspond to 2,136 km². These TIs correspond to the dynamics of communal territories of the Andean zone or Sierra region, encompassing several peoples of the Kichwa nationality, such as the Cañari, Waranka, Natabuela and Panzaleo. Here there is no clear delineation, such as occurs with Amazonian TIs, but rather communal areas based on an altitudinal criterion of ownership. The TI polygons derive from the "nationalities and indigenous peoples of Ecuador" layer of the Council for the Development of Nationalities and Peoples of Ecuador (CODENPE). Given that there is no information on the degree to which these peoples have retained their communal lands or if they have subdivided them into individual properties (not TI), areas below 3,800 metres above sea level have been removed, on the premise that in Ecuador private property is not permitted above this altitude. In addition, in this version, Amazon Tls for Ecuador are recorded by community and not by nationality as before. As a result, a total of 643 communities are now included.

In the expanded area, five ANPs of the subsystem of Natural Heritage Areas of the State (national - indirect use), corresponding to an increase of 3,045 km², are included; as well as 23 protective forest areas (national - direct / indirect use), corresponding to 2,031

Compared to the previous version, within the Ecuadorian Amazon there are no changes in any of the categories analysed.

Peru: with RAISG's new boundary for analysis, the number of indigenous territories has significantly increased, as 1,771 rural communities in the Andean region with an area 59,415 km² are now included. In relation to the 2016 version, 33 new native communities, 19 titling applications and 1 extension request have been incorporated that together represent an increase of 7,713 km². Similarly, 56 Amazon region riverbank peasant communities, totalling 5,274 km², have been incorporated.

With respect to ANPs, the new boundary includes ten new national-level areas and four new department-level areas totalling 9,677 km². As for new ANPs created since the last version of the map in 2016, one new regionally administered area has been created: the ACR Tres Cañones, in August 2017.

VENEZUELA: in Venezuela there is no increase in the area to be considered. Regarding Tls, no new territories have been added to the database. However, a change has been made that reflects progress in indigenous peoples' self-demarcation process. The territories of the Piaroa and Ye'kwana peoples have been grouped into a single polygon per village; previously the polygons were under a different status.

Within the system of protected areas of the Venezuelan Amazon, the main change that has occurred is the creation on 21 March 2017 of the Caura National Park and the annulling of the Jaua-Sarisariñama National Park and the El Caura Forest Reserve, which were overlapped by the boundaries of the new protected area (Decree No. 2,767 / Official Gazette No. 41,118). The new National Park covers an area of approximately 75,000 km², which makes it one of the largest protected areas in the world.

Finally, for both the ANPs and TIs of the Venezuelan Amazon, adjustments have been made to the boundaries of the areas included in the database in those cases where they are defined by: municipal or international boundaries, watersheds, water channels or altitude. This is a result of the continuous process of improvement of the layers of information, making use of new available data.

Bolivia: FAN – Roads: Administradora Boliviana de Carreteras (ABC), 2015 • Urban settlements, Population and political boundaries: Instituto Nacional de Estadísticas (INE), 2013 • IT (Territorio Indígena Originario Campesino): Instituto Nacional de Reforma Agraria (INRA), 2015 • NPA (Áreas Naturales Protegidas): National NPA – SERNAP, 2015 • Departmental and Municipal NPA: Ministerio de Medio Ambiente y Agua, 2012; Gobiernos Autónomo Departamentales de Santa Cruz (2013), Beni (2013) y Pando (2014); Gobiernos Municipales de Ixiamas (2009) y Santa Rosa del Abuná

Brasil: ISA y Imazon – Rivers, roads, main towns and political boundaries: base digital IBGE, 2006 • IT and NPA (2016): digitalized by ISA based on official documents, using the SIVAM, 1:250.000 • Boundaries of Legal Amazonia, according Law 5.173/66 and Amazonian Biogeographical

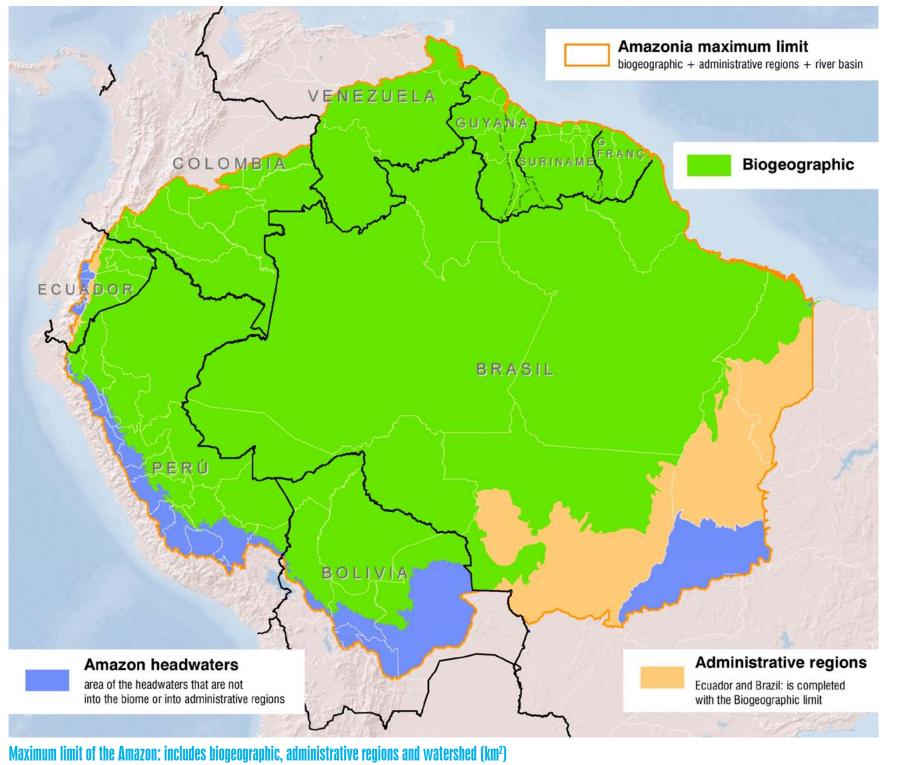
Soundary: Mapa de Biomas Brasileiros. 1st draft, IBGE 2004 • Population: IBGE, 2013 (Censo 2010) • Indigenous population: estimated by ISA, 2015 (population in IT and nearby urban centers based on a variety of sources) Colombia: FGA - Political boundaries and roads: Digital maps, scale 1:100.000 del Instituto Geográfico Agustín Codazzi IGAC (2016) • National Natural Parks: Registro Único Nacional de Áreas Protegidas, 2017 • Reserve Zones: Ministerio de Ambiente y Desarrollo Sostenible, 2014 • IT (Resguardos Indígenas): IGAC, 2015 y Fundación Gaia Amazonas, 2015 • Amazonia boundary: Instituto Amazónico de Investigaciones Científicas SINCHI (2008) • Population: Censo Nacional de Población, DANE, 2005 y Proyecciones a 2017, DANE.

CODENPE, 2012; ECOLEX, 2011; Subsecretaría de Tierras, 2011; Fundación Arcoiris, 2010; Sierra, 2008; INDA, s.f. • Political Boundaries and Amazonian Administrative Political Boundary: CONALI, 2016 • Amazonian Biogeographical Boundary: Sierra, 1999 • Population: INEC, 2011 (proyecciones a sep/2017)

Guyane Française: DEAL - Roads, rivers, main cities and political boundaries, Protected Areas and Areas of Collective Use for Local Communities: DEAL, 2007.

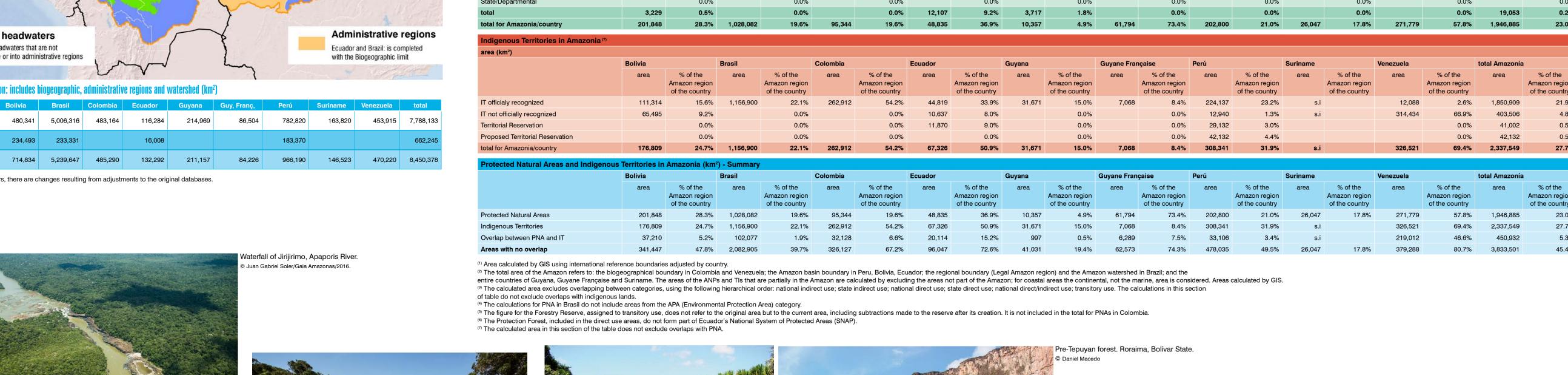
Guyana: collaboration of Roxroy K. Bollers, GIS/IT Coordinator/Iwokrama International Centre for Rain Forest Conservation and Development - Roads, rivers, main cities and political boundaries: DCW • NPA: Iwokrama, 2012 • IT: Indigenous Affair/Gobierno de la Guyana, 2009. Perú: IBC - Rivers: Instituto Geográfico Nacional (IGN) digitalized by MINEDU • Roads: Ministerio de Transportes y Comunicaciones (MTC), 2015 • Reference political boundaries: Instituto Nacional de Estadística e Informática (INEI), 2010 • Boundary of Amazonia: Instituto de Investigaciones de la Amazonía Peruana (IIAP) generalized for the 1:1,000,000 scale, proposal based on ecological criteria • Native communities georeferenced in the field; IBC-SICNA; and include ACPC, AIDESEP-CIPTA, CEDIA, IBC, PETT-Loreto, GEF PNUD, GOREL and PFS, 2016 • Indigenous Reserves (created and proposals): Ministerio de Cultura (MC), 2016 • NPA: MINAM-SERNANP, 2016 • Population; INEI, 2007 (Censos Nacionales 2007 - XI de Población v VI de Vivienda, Crecimiento v Distribución de la población, Lima, p10). Suriname: ACT Suriname - Roads, rivers, urban settlements and political boundaries: DCW: NPA: World Database Protected Areas (WDPA), 2006.

Venezuela: IVIC y Provita – Roads, rivers, urban settlements and political boundaries: digitized using the Political Map of the Bolivarian Republic of Venezuela Simón Bolívar, 2003 • NPA: Rodríguez, J.P.; Zambrano-Martínez, S.; Oliveira-Miranda, M.A.; Lazo, R. (2014); Representación Digital de las Áreas Naturales Protegidas de Venezuela, IVIC and Total Venezuela, IVIC and Total Venezuela S.A; Provita, 2015, on the revision of Decrees 1.233 (Gaceta Official Extraordinaria 4.250/1991), 2.987 (Gaceta Official Extraordinaria 2417/1979) • IT: Ministerio del Poder Popular para la Salud (map), 2007; Secretaria Técnica de la Comisión Nacional de Demarcación del Hábitat y Tierra de los Pueblos y Comunidades Indígenas, Ministerio del Poder Popular para el Ambiente (2014), Mapa Tierras Indígenas; Fundación Wataniba (2014-2015), self-demarcación del Hábitat y Tierra de los Pueblos y Comunidades Indígenas, Ministerio del Poder Popular para el Ambiente (2014), Mapa Tierras Indígenas; Fundación Wataniba (2014-2015), self-demarcación del Hábitat y Tierra de los Pueblos y Comunidades Indígenas, Ministerio del Poder Popular para el Ambiente (2014), Mapa Tierras Indígenas; Fundación Wataniba (2014-2015), self-demarcación del Hábitat y Tierra de los Pueblos y Comunidades Indígenas, Ministerio del Poder Popular para el Ambiente (2014), Mapa Tierras Indígenas; Fundación Wataniba (2014-2015), self-demarcación del Hábitat y Tierra de los Pueblos y Comunidades Indígenas, Ministerio del Poder Popular para el Ambiente (2014), Mapa Tierras Indígenas; Fundación Wataniba (2014-2015), self-demarcación del Hábitat y Tierra de los Pueblos y Comunidades Indígenas, Ministerio del Poder Popular para el Ambiente (2014), Mapa Tierras Indígenas; Fundación Wataniba (2014-2015), self-demarcación del Hábitat y Tierra de los Pueblos y Comunidades Indígenas, Ministerio del Poder Popular para el Ambiente (2014-2015), self-demarcación del Hábitat y Tierra de los Poder Popular para el Ambiente (2014-2015), self-demarcación del Hábitat y Tierra de los Poder Popular para el Ambiente (2014-2015), self-demarcación del Hábitat y Tierra de los Poder Popular para el Ambiente (2014-2015), self-demarcación del Hábitat y Tierra de los Poder Popular para el Ambiente (2014-2015), self-demarcación del Hábitat y Tierra de los Poder Popular para el Ambiente (2014-2015), self-demarcación del Hábitat y Tierra de los Poder Popular para el Ambiente (2014-2015), self-demarcación del Hábitat y Tierra de los Poder Popular para el Ambiente (2014-2015), self-demarcación del Hábitat y Tierra de los Poder Popular para el Ambiente (2014-2015), self-dema Piaroa (OIPUS), Yanomami (HOY), Ye'kwana (Kuyujani) • Boundary of Amazonia: biogeographical considering Gorzula, S. y J. C. Señaris, 1998 y Eva, H. D. y O. Huber (eds.), 2005 • Population: INE, 2011 (Censo Nacional de Población y Vivienda 2011). Other databases used - Rivers of Colombia, Bolivia, Ecuador, Guyana, Suriname, rivers outside of Amazonia and Amazonian Basin: Hydrosheds, http://hydrosheds.cr.usqs.gov • Political Boundaries and Capitals to second level: systemization of data by country based on relief, resulting in



| MAXIIIIUIII IIIIIIL VI LIIE AIIIAZVII. IIIGIUUES DIVYEVYIAPIIIG, AUIIIIIIISLIALIVE IEYIVIIS AIIU WALEISIIEU (KIII ²) | | | | | | | | | | |
|--|---------|-----------|----------|---------|---------|-------------|---------|----------|-----------|-----------|
| | Bolivia | Brasil | Colombia | Ecuador | Guyana | Guy, Franç, | Perú | Suriname | Venezuela | total |
| Previous RAISG boundary | 480,341 | 5,006,316 | 483,164 | 116,284 | 214,969 | 86,504 | 782,820 | 163,820 | 453,915 | 7,788,133 |
| Headwater areas now included | 234,493 | 233,331 | | 16,008 | | | 183,370 | | | 662,245 |
| Maximum Amazon boundary* | 714,834 | 5,239,647 | 485,290 | 132,292 | 211,157 | 84,226 | 966,190 | 146,523 | 470,220 | 8,450,378 |

* in addition to the headwaters, there are changes resulting from adjustments to the original databases.



tected Natural Areas and Indigenous Territories in Amazonia - calculated on the basis of the political boundaries of Amazonia by country(1) (Information on protected areas and indigenous territories updated on june, 2017)

INDIRECT USE Protection of biodiversity, geological and scenic landscape (aesthetic attributes) appropriate for tourism, education by traditional populations not permitted, with the exceptions of Bolivia, Ecuador, French Guiana and Brazil



VENEZUEL

Total population of the country (no of inhabitants)

DIRECT/INDIRECT USE Areas of double categories

Amazon population (nº of inhabitants)

Total area of the country (km²) Amazon area of the country(km²)(1)

% Area Amazonia within the country

10,027,262

6.572.024

714,834

% of the

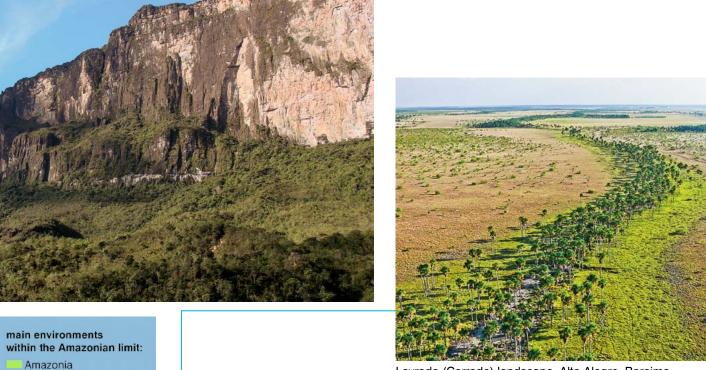
TRANSITIONAL USE Reserved forest area that may or may not be converted into protected area or concession as a result of further study



Andes

Cerrado

Cerrado-Savannah



hapada dos Veadeiros National Park, Goiás. © Raul do Valle/ISA



total Amazonía

44.949.622

8,450,379

% of the

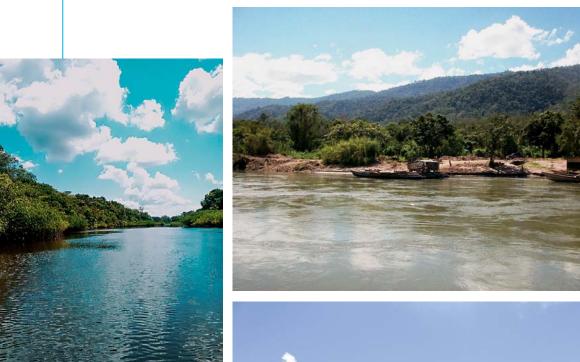
31,431,164

2.194.391

470,220

% of the area

Aerial view of the Demini village and Amazon forest on the upper Demene river, borders of the states of Roraima and Amazonas. TI Yanomami is the largest indigenous territory in the world, with more than ten million hectares. © Edson Sato/2016



Flooded forests of the peruvian Amazon. Entrance

to the Pacaya Samiria National Reserve, sailing up

Inter-Andean dry forests of souther

the Marañon river. Nauta, Loreto. © A. Bravo

ambo river and high hill forests of the peruvian Amazon, towards the Asháninka and Machiguenga Communal Reserves. Satipo, Junín.

© Juan Gabriel Soler/Gaia Amazonas/2016

ushiño River, in the Tepapade Community, Pastaza

ungas landscape, complex mosaic of humid and semi-humid

habitats. La Paz, Bolivia. © C. Nowicki



Puya raimondii or giant Kayara, the most charismatic plant of the Andes. Cochabamba, Bolivia.

© P.L. Ibisch

View of the Serrania Volcanes, south of the Amboró National Park composed of Tucuman-Bolivian forest. Santa Cruz, Bolivia.

© P.L. Ibisch

Aerial view of savannas and islands of forests in tributaries of the Mamoré River. Beni, Bolivia. © Hermes Justiniano



The AMAZON GEO-REFERENCED SOCIO-ENVIRONMENTAL INFORMATION NETWORK is a forum for the exchange and coordination of geo-referenced socio-environmental information, at the service of initiatives that positively link collective rights to the valorisation and sustainability of socio-environmental diversity in the Amazon region. RAISG generates and disseminates knowledge, statistical data and socio-environmental geospatial information to contribute to making the Amazon better understood, appreciated and looked after.



Lavrado (Cerrado) landscape, Alto Alegre, Roraima.

© Taylor Nunes/2010



Aerial view of the Pantanal in Nhecolândia Mato Grosso do Sul.© Araquém Alcânta















