#### What is RAISG?

The Amazon Georeferenced Socio-Environmental Information Network (RAISG) is a consortium of eight civil society organizations from six Amazonian countries with the aim of ensuring the socioenvironmental sustainability of the Amazon, with the support of international cooperation



## Main factors driving deforestation in the Amazon

RAISG analyzes the main drivers of forest loss in the Amazon region and points out where actions should be focused to reverse the trend and protect the integrity of the world's most extensive and biodiverse tropical forest.

Deforestation in the Amazon is the result of a complex interaction between several direct and indirect causes. Most of the direct causes are associated with human activities that have an immediate impact on the health of the forests in this region.

Among the indirect causes are socioeconomic, cultural, political, institutional, and public health factors. Population growth, the expansion of economic activities, and the development of infrastructure are also catalysts for deforestation.

The numbers provided by RAISG's latest report, "Deforestation in the Amazon until 2025. Past and Future of Deforestation in the Amazon", reflect the magnitude of the challenge. Alarmingly, 66% of the Amazon is under constant pressure due to deforestation and degradation.

Today, about 19% of the Amazon is intersected by highway networks, and the construction and operation of 350 hydroelectric plants (with another 483 on the way) are altering the natural flow of more than 1,100 tributaries in the Amazon basin. Furthermore, oil blocks occupy 9.4% of the Amazon territory, and up to 43% of this area overlaps with Indigenous Territories and Protected Natural Areas.

Mining, in turn, affects 17% of the region, while areas dedicated to agriculture and livestock have increased by 81% in the last two decades, causing 84% of deforestation in the Amazon. In this same period, 14% (1,208,162 km2) of this region was affected by fires.

This analysis highlights the urgency of adopting immediate measures and actions that address these factors and their devastating effects, because as RAISG warns, "if public policies that prioritize the use of the resources that these spaces (Amazonian ecosystems) shelter persist, we will have medium and short term consequences, moving towards the tipping point of the Amazon." A point that could generate a collapse for the ecosystems of this region and for all forms of life that live and interact there, and on which we depend.

## Important progress in the protection of Isolated or Early Contact Indigenous Peoples, PIACI

The Declaration of Belém, signed by ACTO member countries, acknowledges the existence of PIACI in the Amazon Basin and incorporates recommendations to guarantee and protect their rights. The challenge: moving from paper to action.

Thanks to the historic work of indigenous organizations and civil society to acknowledge and defend the rights of Isolated or Early Contact Indigenous Peoples (PIACI, the acronym in Spanish), the Amazon protection agenda, or Declaration of Belém, result of the Amazon Summit held on August 8 and 9, specifically mentions these peoples and establishes as a priority: "to promote efforts to protect and ensure their collective rights over their territories and lands".

Part of those involved in protecting PIACI - the Amazon Georeferenced Socio-Environmental Information Network (RAISG), the International Working Group for the Protection of Isolated or Early Contact Indigenous Peoples (GTI-PIACI), several indigenous organizations and other allies - carried out the roundtable "Cooperation Models and PIACI Protection Perspectives"; together with the Ministry of Indigenous Peoples of Brazil (MPI) and the Amazon Cooperation Treaty Organization (ACTO).

This event proved to be fundamental in the dialogues that recently took place in Belém, within the scope of the Amazon Summit, and resulted in a joint document of recommendations. As Angélica García, Executive Secretary of RAISG highlights: "the next step is to ensure that the document transcends the Summit and becomes a dynamic tool to open new spaces for discussion and negotiation, in collaboration with ACTO, and that lead to protection plans specific to the PIACI in each country."

The collaboration between RAISG and GTI-PIACI reaffirms the importance of involving and counting on different actors in protecting the Amazon, such as international donors and multilateral agencies. The challenge, however, remains to translate this recognition into tangible actions that respond to the urgency of avoiding the tipping point in this region, worsened by growing threats and an accelerating climate crisis.

As García concludes, "civil organizations fighting to defend the PIACI and the Amazon must join forces to demand concrete plans from governments, and our organizations must have full participation in the process."



# MapBiomas Award 2023: recognizing excellence in the use of data for conservation

In the 5th edition of this award, eight projects and three honorable mentions were highlighted among 163 participants. The inclusion of new categories highlights MapBiomas' commitment to education and innovation in protecting the Amazon.

The main objective of the MapBiomas Award is to promote applications and projects that make use of data from any initiative, module or product on the platform (MapBiomas Amazônia, Chaco, Mata Atlântica, Pampa)\*. In its fifth edition, and in collaboration with Instituto Ciência Hoje, the initiative highlighted and awarded outstanding endeavors from seven countries and added two new categories: 'Applications in Schools' and 'Actions to Tackle Deforestation'.

This diversification not only broadens the spectrum of approaches to environmental conservation, but also demonstrates RAISG's ongoing commitment to education and innovation through the MapBiomas initiative. RAISG, through the eight organizations that are part of the network, is responsible for the annual launch of MapBiomas Amazônia, which this year presents its fifth collection, as well as the innovative MapBiomas Água (Water) study.

MapBiomas aims to promote the conservation and sustainable management of natural resources and face the challenge of climate change. To this end, the tool uses artificial intelligence in cloud computing on the Google Earth Engine platform to generate maps of land occupation and use in the region since 1985.

The data is freely accessible and has been used in various applications. In addition to land coverage and use, MapBiomas also offers modules for deforestation, secondary vegetation, temporal analysis, infrastructure, irrigation, pasture quality, mining, fires, and water.

## A barrier against deforestation and climate change: the crucial role of Indigenous Land and Protected Natural Areas

Several RAISG analyzes confirm the importance of these areas in protecting Amazonian biodiversity and combating climate change.

Together, Indigenous Land and Protected Natural Areas (PNA) protect around 72% of areas in the Amazon free from threats and pressures caused by human activities; likewise, around 64% of these areas are free from anthropogenic disturbances.

In addition to protecting biodiversity, ILs and PNAs play a crucial role in capturing and storing carbon, as shown by analyzes by RAISG and the Woodwell Climate Research Center (WCRC), which since 2014 have been monitoring the health of forests and the amount of carbon stored in these areas.

According to the latest data from this alliance, 58% of the carbon in the Amazon remains in the forests of Indigenous Lands and Protected Natural Areas. Between 2003 and 2020, these areas achieved a gain of 144.8 million metric tons of carbon (Mtc), while outside of them, 42% of the region, carbon loss reached 1,296.8 Mtc.

## The "Science and Indigenous Knowledge for the Amazon" project shows significant progress during its visit to Sinchi Roca, Peru

This community is part of the Kakataibo Indigenous Reserve, located in the departments of Ucayali and Huánuco, one of the 4 pilot landscapes of this project which, since 2014, has been working in priority areas of the Amazon to measure the loss or gain of carbon stored in the region.

'Science and Indigenous Knowledge in the Amazon' is a regional project led by RAISG, COICA, and WCRC (Woodwell Climate Research Center) focused on collecting, analyzing, and communicating data on carbon reserves in Territories, Nationalities, and Indigenous Communities and Protected Natural Areas of the Amazon. Its objective is to learn and understand the dynamics of carbon stored in these protected areas and the main causes of this loss or gain.

The recent visit to the community of Sinchi Roca, Peru, held on August 23 and 24, is part of the objective of identifying and publicizing successful experiences in Pilot Action Landscapes (PAL) in four Amazonian countries: Brazil, Colombia, Ecuador and Peru.

As Kathrin Hopfgartner, project coordinator in Peru, explains, the Instituto del Bien Común (IBC) has been working with the communities of Kakataibo for almost two decades to improve territorial security in a territory threatened by illegal activities. During this period, and hand in hand with the communities, they carried out land planning and ownership regularization activities and mapped threats. The progress and measurement of these PALs is providing an exchange of information and knowledge between science and indigenous knowledge that not only allows us to verify information on biomass loss and gain, observed spatially, but also contributes to the strengthening of measures of territorial management by indigenous communities and territories, which, for millennia, have ensured the forest standing.

Harlem Mariño, regional coordinator of the IBC's 'Science and Indigenous Knowledge in the Amazon' project, highlights that "we are already working on a methodology to have data until 2030. For now, the first results of this work scientifically demonstrate that the main loss of biomass occurs outside Protected Natural Areas and Indigenous Land".

In the future, one of the objectives is to have a toolbox that collects important information about methodologies, knowledge, and tools that can be replicated with indigenous peoples in other Amazonian landscapes.

In addition to visiting the Sinchi Roca community, members of the technical teams from all organizations collaborating on the project also met in Lima.

\*Since 2021, 'Science and Indigenous Knowledge for the Amazon' is implemented by the RAISG, COICA and WCRC consortium, funded by the Norwegian International Forest and Climate Initiative (NICFI).



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