

# Biodiversity insights report:

Preserving the value of nature in Latin America  
and the Caribbean



# Introduction

## Importance of Latin America in terms of nature and biodiversity

Latin America, home to nearly 40% of the world's biodiversity, is one of the most diverse regions on the planet. Six countries in this region – Brazil, Ecuador, Colombia, Mexico, Peru, and Venezuela – are among the world's seventeen megadiverse countries.

The abundance of natural resources and the great variety of ecosystems in Latin America represent significant potential for resource conservation in the region.



Its terrestrial, coastal, and marine ecosystems represent about **80% of the world's biomes**,



22% of the world's forest cover,



and about 30% of the world's available freshwater

Source: (ECLAC, 2022)

However, threats such as climate change, population growth, and the uncontrolled expansion of the agricultural frontier have considerably increased the pressure on natural resources, affecting biodiversity and ecosystem services. In countries such as Brazil and Colombia, notable impacts have been seen, mainly due to deforestation in the Amazon region, where rates to around 22% have been recorded in recent years (ECLAC, 2023)

In this context, nature-based solutions are designed to integrate biodiversity as part of a global strategy to help people and ecosystems adapt to the adverse effects of climate change, to avoid the accelerated loss of biodiversity, and to recover habitats for the development of ecological processes.

Latin America has an excellent opportunity to lead projects aimed at biodiversity improvement, promoting the development of strategies linked to emerging compliance markets, and helping voluntary efforts to become a hub of great options for communities and local governments. To achieve this, it is necessary to strengthen technical capacities and create valuable tools that allow incorporating new ideas into biodiversity conservation. Plus, it will allow an equitable distribution of environmental benefits in sync with economic and social benefits that favor a sustainable environment for humans and ecosystems.





# 1. Public policy and regulation

The Latin America and Caribbean region is a biodiversity superpower—for example, it currently has a particularly high number of protected areas, covering about 22% of the continental land area and almost 3% of the marine territory (WWF, 2020).

## Colombia

is a leader in biodiversity conservation, with a National Environmental System coordinated by the Ministry of Environment and comprising 33 Regional Autonomous Corporations, the National Natural Parks System, and five research institutes aimed at promoting the study of terrestrial and marine biodiversity conservation. Currently, more than 43% of the Colombian territory is protected by conservation instruments (ECLAC, 2022).

As one of the best economic performers in the region, Colombia is also leading the change in environmental policies in the region. For example, through the publication of its Nationally Determined Contributions (NDCs), the country has committed to reducing greenhouse gas emissions by 51% by 2030. This is in addition to the promotion of different emerging markets such as carbon credits or biodiversity markets, identifying for the latter a demand of approximately USD60 million.

## Brazil

has made several efforts to maintain its protected ecosystems, structuring policies that allow it to conserve more than 25% of its territory, create a fund between the state and the private sector that encourages local communities to conserve the native forest called Bolsa Floresta, and the leadership of some companies, such as Natura Cosmetics, which uses products derived from nature and extracted from forests through projects involving agreements with local communities. (ECLAC, 2022).



## México,

through its National Commission for the Knowledge and Use of Biodiversity (CONABIO), has also led studies focused on biodiversity knowledge and decision-making. It has also launched a large scheme of payments for ecosystem services, financed by approximately \$18 million from federal tax revenues from water use (ECLAC, 2022).

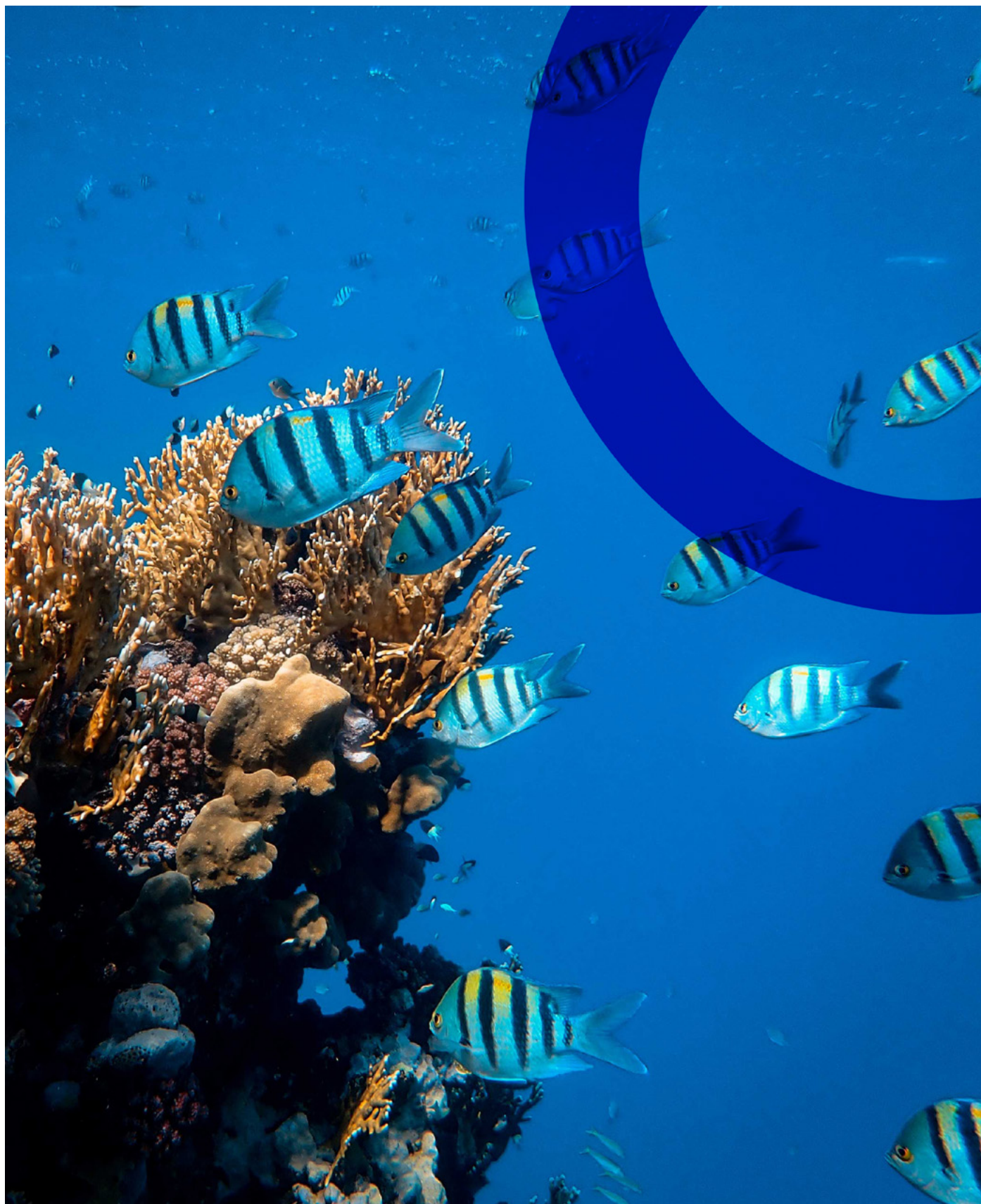
## Perú,

like other countries in the Amazon basin, is focusing its efforts on halting deforestation in the Amazon rainforests, where the figure reached more than 140,000 hectares last year, according to the Peruvian Ministry of the Environment (ECLAC, 2020). The main actions are currently focused on updating regulations and seeking constitutional tools that will allow the country to change its environmental policy. To highlight this, in recent years Peru has sought to update a tool for allocating compensation for biodiversity loss that will allow compliance with compensatory measures for extractive sectors with high impact, such as mining.

## Ecuador

has decided, among other things, to combat an important point on its environmental agenda: the precarious financial situation of biodiversity conservation. To do so, the country hopes to raise funds from international cooperation. However, there are not many mechanisms to exercise control over the environmental actions derived from investments, or to fill the gaps in the financial resources available for biodiversity conservation.

The governments of seven Amazonian countries (Colombia, Bolivia, Ecuador, Brazil, Peru, Guyana, and Suriname) have signed the Leticia Pact. This seeks to establish immediate actions to prevent the loss of biodiversity in the Amazon Basin, as well as to halt deforestation, selective logging, and illegal mineral exploitation. It also aims to create scientific knowledge that will enable better decisions to be taken for the conservation of the Amazon Basin.





## 2. Science

As mentioned above, Latin America and the Caribbean comprise seven of the most diverse countries on the planet, as well as the richest area of biodiversity. These countries cover almost 10% of the Earth's surface and contain nearly 70% of the world's mammal, reptile, amphibian, bird, plant, and insect species. South America contains more than 40% of the Earth's biodiversity and more than a quarter of the world's forests. The Mesoamerican Reef is the largest barrier reef in the western hemisphere. In addition, 50% of the Caribbean's plant species are endemic (ECLAC, 2022).

However, this diversity is threatened by the impacts that common practices are having on the ecosystems of Latin America and the Caribbean.

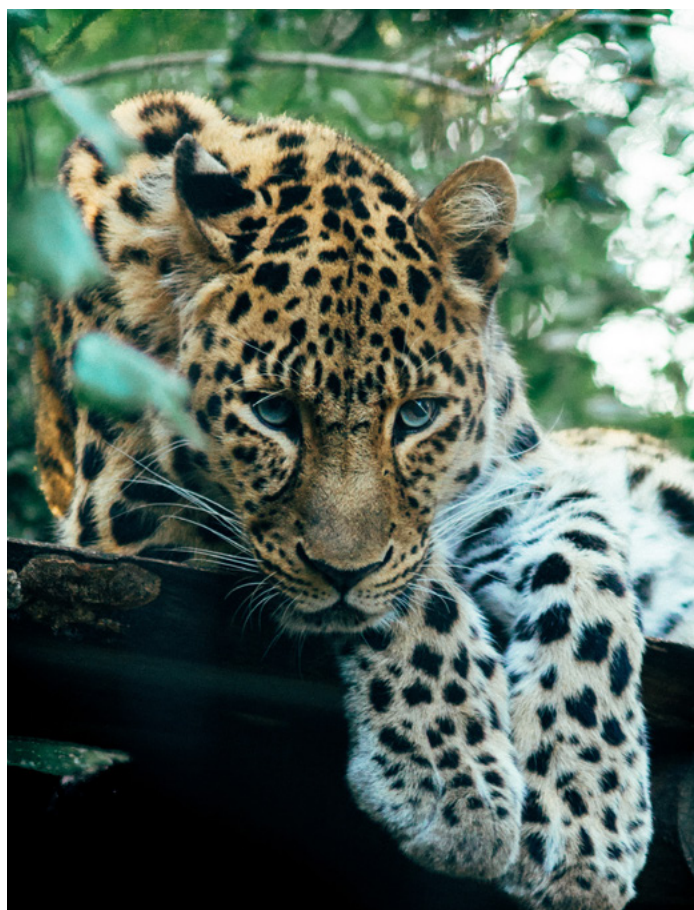
### Forest conversion

The main impact on biodiversity in the region is the conversion of forests for other uses, mainly cattle ranching. In recent years, more than 80 million hectares of forest have been lost in the region, and cattle ranching has increased its production by more than 60 million head of cattle (ECLAC, 2022).

For example, between 2001 and 2020, the Amazon lost more than 54.2 million hectares, which corresponds to the size of a country like France, with the Brazilian Amazon being the most affected, followed by Bolivia, Peru, and Colombia (ECLAC, 2022).

### Loss of soil productivity

The financial incentive of unsustainable practices such as cattle ranching, deforestation, illegal mining, and unregulated urban expansion has generated an alarming loss of soil productivity in tropical ecosystems. Aspects such as the extension of dry seasons, soil compaction, soil erosion, and the increase in pests and pathogenic agents have affected soil conditions, increasingly leading to the expansion of the agricultural frontier into natural areas. Moreover, the impacts are not only on soils, as fisheries have also been affected; in the last 15 years about 40% of fishery resources have been lost and only a 10% recovery rate has been achieved (ECLAC, 2022). For example, in 2022 in Latin America and the Caribbean, the agricultural sector uses 68% of existing freshwater; however, on-farm water-use efficiency is often less than 40% (ECLAC, 2022).



## Climate, food, and energy impacts

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Latin America is home to the largest expanse of tropical forests in the world. These forests store large amounts of carbon, alongside providing a system of capture and storage that helps maintain the region's climatic stability. In addition, part of the hydrological and food security of several countries in the region depends on the humidity regulated by these forests.



Finally, the loss of habitat and its biodiversity is causing a phenomenon of massive displacement toward urban environments, generated by other aspects such as land tenure and land use, growing inequality, and the expansion of poverty.

For their part, there are projects associated with the environmental licensing framework that is based on the concept of the mitigation hierarchy. This framework aims to: mitigate biodiversity losses due to the development of a project, work, or activity, sequentially avoiding the impacts on biodiversity wherever possible; minimize impacts where they are unavoidable; restore biodiversity where results are of limited duration; and compensate for any residual effects on biodiversity.

Most of the hydrocarbon, infrastructure, mining, and energy projects that are developed in Latin American countries are governed by these frameworks of action. countries such as Colombia, Chile, and Brazil have developed complete methodologies that seek to avoid accelerated impacts on ecosystems for the development of regulated projects.

Projects associated with the development of clean energies such as solar and wind farms have aroused the interest of biodiversity funders. This is because these technologies are less harmful to habitats and species, and they represent a great opportunity for the development of compensation projects through schemes such as habitat banks and those that can operate under biodiversity credits.





### 3. Economy

The sustainability of adequate conservation management depends to a greater extent on financing the actions required to conserve biodiversity by means taxes, funds, subsidies, and public and private investment, among others. These resources for financing come from normative regulations such as environmental compensations or sanction fees, generated by the different countries in the region.

An example of this is associated with the regulatory frameworks for compensations for biodiversity loss. Countries such as Colombia, Brazil, Chile, Mexico, and Peru have made important advances in the financing of biodiversity by compensating for the residual impacts caused by the development of a project, work, or activity. Mexico and Brazil have opted for the structuring of compensation funds, where companies pay fees equivalent to their impacts, and the resources are allocated to projects in favor of biodiversity. Chile, Peru, and Colombia have structured compensation allocation methodologies, which open up a range of possibilities for the development of conservation projects that compensate for residual impacts in equivalent areas. Colombia has been characterized as a leader in the region because it has complete regulation in this aspect and has allowed the development of different compensation mechanisms such as habitat banks.

On the other hand, voluntary markets are emerging positively in the region. Innovative financial instruments have appeared positively in the market under different tools such as forest bonds, biodiversity credits, and tradable ecosystem services certificates, generating important benefits for the owners of ecological assets, whether they are private, community, or governmental. These emerging financial instruments complement other mechanisms being developed in the region, such as the distribution of payments for ecosystem services, water funds, and accounting processes that include biodiversity and ecosystem services.

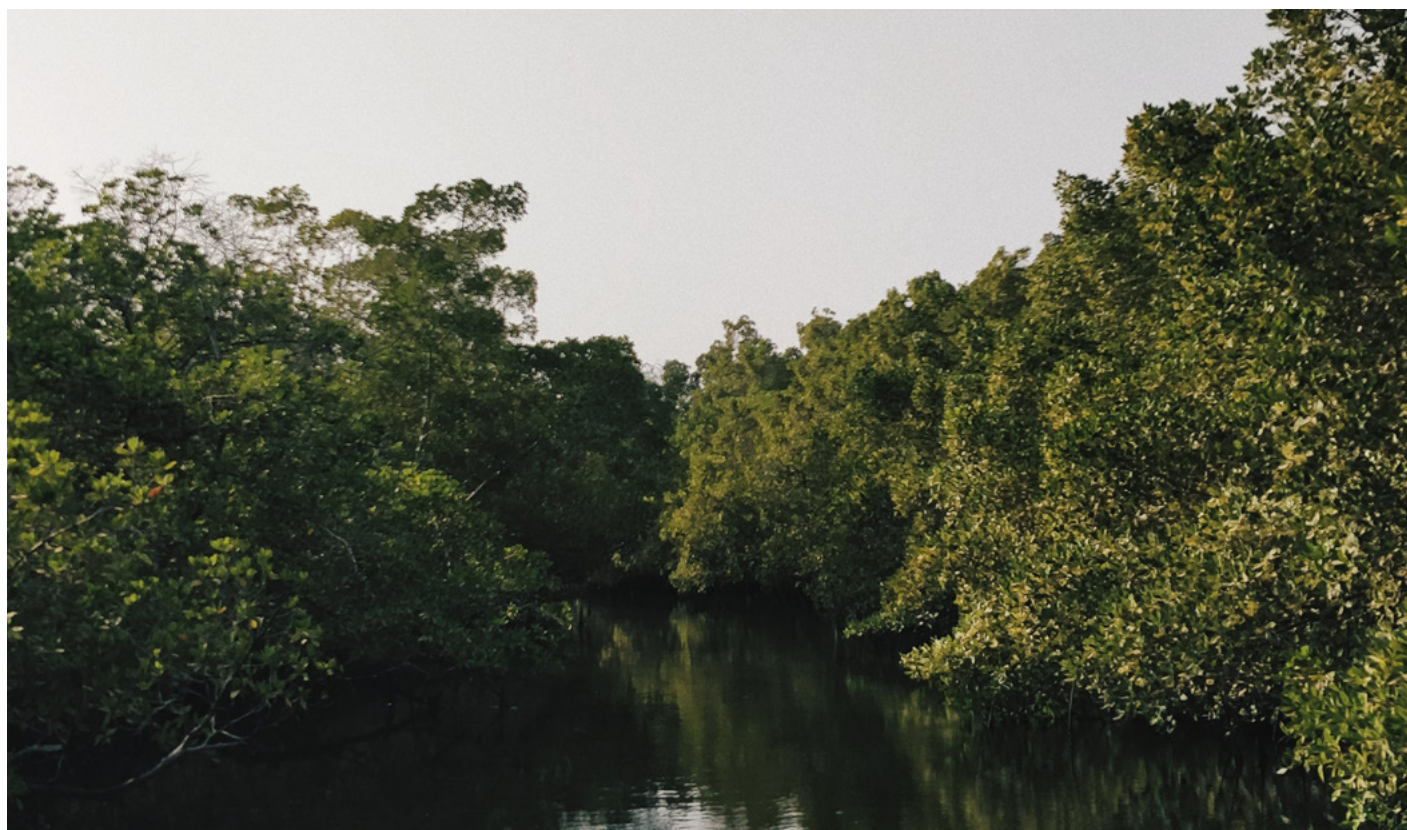
The Latin America and Caribbean region has become a unique laboratory for the development of nature-based solutions, and climate and biodiversity finance. The main financiers of biodiversity in the region are large companies in oil and gas, mining, and energy, and those that use nature for their productivity. However, the greatest potential in the region is for the developers of conservation projects because although the region represents the greatest wealth in biodiversity, there is still a lack of instruments that allow technical, economic, and social development of projects in the long term.



## To keep in mind

Key findings concerning biodiversity in the Latin America and Caribbean region, along with the pressures it faces, include:

1. An ongoing decline in species abundance and a high risk of species extinction persist.
2. Though the rate of habitat loss in Latin America and the Caribbean has somewhat decelerated, it remains worryingly high.
3. Pressures stemming from rapid economic growth and social inequality pose considerable threats to the region's natural resources.
4. The region witnesses continuous agricultural expansion and intensification to bolster livestock, arable, and commodity production.
5. Significant infrastructure developments, including dam and road constructions, are altering the region's landscape.
6. The effects of dense urban populations on biodiversity are particularly noteworthy in this region.
7. The region's economies are deeply intertwined with, and dependent upon, their natural resources.
8. The extraction of minerals and hydrocarbons has sometimes led to severe local impacts on biodiversity, including vegetation removal, and water and soil pollution.
9. Transboundary and local air pollution have been acknowledged as influencing human health in the region.
10. The impacts of climate change on the region's coral reefs and mountainous habitats are now becoming evident.





## References

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