

Meeting of Manu River (sediment laden) with clearer Madre de Dios River. Former Manu River channel still visible but covered with vegetation.

Living Amazon Initiative

Development without deforestation: valuing the Amazon's natural capital

From the frozen hights of the Andes mountains, springs the water that will flow thousands of kilometers across frontiers and through forests and floodplains, and, together with other rivers, forms the mighty Amazon – the largest river in water volume on the planet. The long journey to the mouth of the river into the Atlantic Ocean through the world's largest and most diverse tropical forest is a reminder of the interdependence between the many ecosystems that make up the Amazon region, and highlights the importance of a shared vision for the future amongst the nations that span the region, if we are to curb deforestatation, fragmentation and destruction of its aquatic and terrestrial ecosystems.



atural ecosystems do not recognise borders. The challenges involved in protecting a biome that extends over 6.7 million km2 across nine South American countries, also transcend geographic and political limits.

In order to tackle the drivers of deforestation and forest degradation, a new approach and strategy is needed for development in the Amazon region, one that values standing forests, their ecosystem services and their hydrologic connectivity.



Guided by this vision of integrated action for a standing forest, WWF's Living Amazon Initiative (LAI), together with various partner organisations, has been carrying out studies to support decision making in areas of relevant biological, social and economic importance, in the biome. The aim is to foster dialogue among governments, private sector, financial institutions and multilateral agencies that will: facilitate exchanges of policies and practices capable of reducing deforestation; encourage the creation of financial and economic mechanisms that place a high value on the standing forest; and stimulate the establishment of transfrontier cooperation agreements.

PRIORITY LANDSCAPES

THE ANDEAN PIEDMONT STRETCHES OUT OVER AN AREA OF THOUSAND KM2 AND COLOR

High impact activities largely associated to the expansion of the agricultural frontier, mining, large transport infrastructure works, electricity generating projects and the migration of populations are increasing the pressure on the integrity of natural ecosystems in the Amazon and leading to irreparable losses and waste of the precious natural capital that the Amazon offers in the form of services provided by its ecosystems, which took thousands of years to form.

Within a perspective of maintaining the Amazon as a single ecological unit, and despite representing only a fraction of this vast biome, the Living Amazon Initiative has selected two transboundary priority landscapes to implement pilot projects designed to test and multiply effective solutions to address the problems of deforestation and natural resource depletion.

The first is the Andean Piedmont region and embraces parts of three countries – Peru, Colombia and Ecuador. It stretches out over an area of 400 thousand km² and 85% of its natural areas have not yet been converted. The second priority landscape is the headwaters of the Amazon River, shared by Brazil, Peru and Bolivia. It is a unique region of around 390 thousand km², and noted for the presence of protected areas (32%) and indigenous lands (25%). However, deforestation rates in the region are on the increase.

Any increase in deforestation and forest degradation in these two landscapes will inevitably have severe repercussions on the Amazon as a whole, because they shelter unique forest formations and relief profiles and because they play a vital role in ensuring the replenishment of more than ten of the biome's river basins.

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PRIORITY LANDSCAPES

THE ANDEAN PIEDMONT COVERS PARTS OF THREE COUNTRIES – PERU, COLOMBIA AND ECUADOR

THE HEADWATERS OF THE AMAZON RIVER ARE SHARED BY BRAZIL, PERU AND BOLIVIA

The advance of deforestation fronts into these two priority landscapes areas is, undoubtedly, a serious threat to the sustainability of the Amazon biome but, at the same time, it offers an opportunity for the respective local and national governments to take the lead in implementing differentiated land management models by creating appropriate legislation, and accessing and developing alternative forms of financing, thereby making it possible to unfold zero net deforestation action plans that take into account the integration of local, traditional and indigenous populations into the regional and national economies and that maximise the benefits of the standing forest as part of an integrated development process for the two regions. The results at the regional level, in turn, could show the way to extend the lessons learned to the other Amazonian countries.





Deforestation, Rondonia state, Brazil.

PREVIOUS EXPERIENCES IN AMAZON BIOME COUNTRIES HAVE SHOWN THAT IT IS FEASIBLE TO CURB DEFORESTATION WHILE PROMOTING ECONOMIC DEVELOPMENT BASED ON THE FOREST ITSELF AND THE ECOSYSTEM SERVICES IT PROVIDES

The reduction in deforestation rates achieved in Brazil over recent years has made it possible to identify the factors and conditions needed to reduce deforestation without jeopardising economic growth, and creates an opportunity to encourage the Andean-Amazonian countries, whose deforestation rates continue to grow, to seek out viable solutions for reducing them. The current scenario is favourable insofar as various countries – Brazil, Peru, Colombia and Guyana – have already formally committed themselves to curbing deforestation and Bolivia is currently discussing low carbon strategies and possible modifications to its legislation.





ZERO NET DEFORESTATION

Zero net deforestation is not the same as zero deforestation, which means no deforestation anywhere. Rather, it leaves room for change in the configuration of the land-use mosaic, provided the net quantity, quality and carbon density of forests is maintained, because it is of fundamental importance to **conserve as much of the world's remaining natural forests as possible**, to maximise the conservation of biodiversity and the forests' natural capital and at the same time reduce greenhouse gas emissions.

ENABLING A GREEN ECONOMY

WWF BELIEVES IT IS NECESSARY TO ESTABLISH ECONOMIC INSTRUMENTS TO DRIVE A FOREST-BASED ECONOMY WHILE SIMULTANEOUSLY DRIVING ACTIONS TO CURB DEFORESTATION. IN THIS WAY, THE VALUE OF THE STANDING FOREST AND THE ECOSYSTEM SERVICES IT PROVIDES WILL BE TAKEN INTO ACCOUNT IN LOCAL AND REGIONAL POLICY FORMULATION PROCESSES.

Natural capital is more than just the value of forest goods, like timber and non-timber forest products; it includes the value of the ecosystem services that are essential to the maintenance of ecological equilibrium and human well being, like climate regulation, water balance, soil protection, nutrient retention, and biodiversity, among others.

The financial institutions present in the region and the Amazonian countries' development agencies are key actors in this process. By incorporating social and environmental safeguards to their financing policies, those institutions will be making the necessary contributions towards ensuring that credit and investment policies promote and foster a solid forest-based economy without jeopardising the existing natural capital.



Women of Cooperacre, a Brazilian cooperative, processing Brazil nuts (*Bertholletia excelsa*), Acre, Brazil.



WWF-Brazil / Juvenal Pereira

Rubber tapper scoring a rubber tree (*Hevea brasiliensis*), in the community of Cumari, Acre, Brazil.



The forest and global climate

The planet needs its forests because amongst other things, they contribute to carbon sequestration, they help lock up carbon stocks, and they regulate the climate.

The more fragmented the Amazonian ecosystems become, the more they lose their natural ability to resist the effects of climate change, maintain ecological equilibrium, and provide ecosystem services to local populations, the countries of the region, and the world.

Considering that 20% of gas emissions worldwide come from deforestation and forest degradation, it is no exaggeration to state that maintaining the Amazon is one of the greatest challenges facing the world in the 21st century, in its fight against climate change. The planet needs its forests alive and standing. Adopting Zero Net Deforestation Plans will help the nine countries that share the Amazon biome to make a major contribution to the global climate change agenda.

How much are ecosystem services worth?

The supply of abundant, clean water is just one of the outstanding ecosystem services provided by the Amazon. Other services include carbon sequestration, fertilizing soils and protecting them from erosion, distributing rainfall and regulating its frequency, temperature and humidity regulation that ensures conditions for the existence of the greatest diversity of plant and animal species on the planet, and being one of the world's largest forest carbon stocks.

The countries of the Amazon biome lead the world in ecological wealth. The challenge is to create new opportunities for growth in the region while, at the same time, ensuring protection for the ecosystem services that are the base for its economic development – growth that does not exhaust the natural resources.

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High impact activities are increasing the pressure on the integrity of natural ecosystems.



It is fundamentally important to research, understand and conserve the Amazon.

Part of the Living Amazon Initiative's work consists of assisting governments, development agencies and financial agencies to determine and set a value on ecosystem services and in turn to make use of that information in decision making processes that conciliate conservation and development. The studies that WWF has already carried out in some priority landscape areas show that investing in combating deforestation is good for the economy.

IF THE STATE OF ACRE, ONE OF THE STATES THAT WAS ASSESSED, MANAGES TO ESTABLISH SUSTAINABLE FOREST MANAGEMENT AS A PRIORITY AND REDUCE DEFORESTATION BY 75% THEN IT WILL BE ABLE TO AVOID LOSSES TO THE ORDER OF 1.8 TO 3.6 BILLION DOLLARS IN THE PERIOD FROM 2012 TO 2025.





WWF AMAZON VISION

development and global responsibility. the world, within a framework of social equity, inclusive economic and cultural contribution to local people, the countries of the region, and An ecologically healthy Amazon Biome that maintains its environmental

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Why we are here

To stop the degradation of the planet's to build a future in which humans live in www.panda.org/amazon natural environment and harmony with nature.

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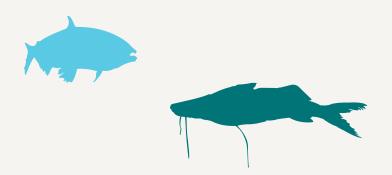
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Inirida River, in the transition zone of Orinoco-Amazon, Colombia.

"Only with a vision of a forest-based economy will we be able to achieve development for the region, guarantee quality of life for its inhabitants and safeguard the integrity of the biome, thereby ensuring long-term ecological sustainability, the maintenance of the water cycle, the provision of ecosystem services and resilience in the face of climate change."

André Dias, leader of the strategy to Curb Deforestation and Enable a Forest Economy



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