



For more information, or for interviews, please contact:

Catherine Williams, [catherine.williams@unsdsn.org](mailto:catherine.williams@unsdsn.org), +1 (770) 401-4635

To access press material, [click here](#).

## Leading Amazonian scientists release an urgent call for action on the Amazon basin

*The Science Panel for the Amazon will present preliminary findings of a first-ever comprehensive scientific Report for the entire Amazon basin*

**NEW YORK (AND ZOOM)** — (14 JULY, 2021) The [Sustainable Development Solutions Network](#) and the World Bank co-hosted a high-level dialogue to present initial findings of the Science Panel for the Amazon (SPA) and foster conversations between scientists and policymakers to advance evidence-based sustainable development pathways in the Amazon. The presentation happened at a side event at the [High-Level Political Forum](#) on Sustainable Development at the United Nations. Speakers included Nobel Laureate President Juan Manuel Santos (former President of Colombia), Gregorio Mirabal (Coordinator of the Congress of the Indigenous Organizations of the Amazon Basin [COICA]), Mr. Guilherme Leal (CEO and Founder of Natura Cosmetics), Dr. Valerie Hickey (The World Bank), and SPA scientists Dr. Mercedes Bustamante (University of Brasília), Dr. Simone Athayde (Florida International University), Dr. Marielos Peña-Claros (Wageningen University), and Dr. Ricardo Abramovay (University of São Paulo).

### The urgency of science-based decision-making

Researchers have been warning about the disastrous consequences of destruction of the Amazon forest for decades. As climate change ravages the world with increasingly warm temperatures and climate extremes, as recently witnessed by [major flooding in Amazonas State](#) (Brazil) and [COVID-19 pandemic still continues to spread around the globe](#), it is more urgent than ever to promote, disseminate and up-scale solutions and develop pathways for sustainable development, and to provide science-based, policy-relevant recommendations for decision-makers.

Decision-making should be guided by clear and reliable data, provided by experts to help the public to understand real emergencies, such as the one we are facing now. In this sense, the SPA Report, authored by scientists from the eight Amazonian countries, French Guyana, and global partners, not only assesses the state of the Amazon's ecosystems, but also regional trends, implications for the long-term well-being of the region, and opportunities and policy-relevant options for the conservation and sustainable development of the Amazon.

The many crises occurring in the Amazon strongly impact not only the local community but also the entire global community, given the critical role this biome has in global water cycles and in the regulation of climate variability. Moreover, recent studies show that deforestation and forest degradation can influence the emergence of new zoonotic diseases. Given the alarming [increase of deforestation in the Amazon](#), there is a growing risk of outbreaks, which can have enormous social and economic consequences, as seen during the COVID-19 pandemic. With commitments made to deliver the 2030 Agenda during the [United Nations Decade of Action](#), it is critical that action is prioritized to reduce the threats that the region currently faces.

### **Preliminary findings of the Science Panel for the Amazon**

The Amazon is a biodiversity superpower: It houses the greatest concentration of biodiversity on Earth, with more than 10% of the world's described species. This extraordinary diversity confers stability and resilience to ecosystems, and is a product of complex dynamics that have been co-evolving for millions of years. Still, much of this biodiversity is unknown to science, and the rate of description of new species for most taxonomic groups in the Amazon is among the highest recorded (about one every other day).

The Amazon is a critical element of the Earth's climate system. Rainfall produced in the Amazon results in the largest river discharge on Earth, about 20% of the total world river input to the oceans. It also acts as a crucial carbon sink, storing 200 billion tons of carbon in its soils and vegetation.

*"Science tells us that we face potentially irreversible and catastrophic risks for humans due to multiple crises (biodiversity decline, climate change, Covid-19 pandemic). However, it is also showing us there is a narrow window of opportunity to change this trajectory. The fate of Amazon is central to the solution to the global crises. The SPA consolidated a new understanding of the responses of the Amazonian ecosystems to changes happening at unprecedented rates and is pointing out the urgency to address solutions."* -Mercedes Bustamante

The Amazon is also home to around 40 million people, of which more than 2 million are Indigenous people, including more than 350 ethnic groups, some 60 of whom remain in voluntary isolation. This number, however, represents just a fraction of the 8 to 10 million indigenous people who lived in the Amazon before colonization and spoke more than 1,000 languages.

Indigenous peoples have been living in the Amazon for at least 12,000 years, in both rural and urban Indigenous communities, and have contributed to the biodiversity we see today. Early agricultural production modes that existed before the arrival of Europeans included a legacy of agrobiodiversity and domestication of at least 155 plants. After European incursion in South America in the 16<sup>th</sup> century, enslaved Africans brought their own agricultural traditions, techniques, and crop varieties; many dishes emblematic of Latin American gastronomy are intrinsically linked to Africa and its people.

*"The Amazon is a living biocultural system that cannot survive without the valorization, empowerment and participation of Indigenous Peoples and local communities (IPLCs) in both*

*rural and urban spaces. Biocultural diversity in Amazonia and elsewhere provides the entire globe with knowledge, resources, alternatives and innovations for addressing uncertainty as we navigate turbulent times and social-ecological tipping points of the Earth's resilience. There can be no development without inclusion, equity and socio-environmental justice.” - Simone Athayde*

Today, the Amazon's population is more than 70% urban. This calls for an increased attention to the regions' explosive urbanism and its urban environments.

Currently, 18% of the forested area of the Amazon basin has been converted to other land uses, with an additional 17% being degraded. The main driver is the expansion of agricultural frontiers and illegal activities. Overexploitation, deforestation, and forest fragmentation are the main threats to biodiversity, both in the tropical Andes and lowland Amazon. Anthropogenic disturbances have put more than 8,000 endemic plants and 2,300 animals at high risk of extinction. It is also changing the functioning of forests and other ecosystems, impacting carbon storage and sequestration, decreasing its productivity and resilience to disturbance, as well as disrupting the water cycle with priceless consequences for current and future human well-being.

Freshwater ecosystems have been degraded and species threatened by a myriad of factors including climate change, overexploitation, pollution, mining, and stream fragmentation by hydroelectric dams and other infrastructure (e.g., roads), altering ecosystem processes by modifying trophic cascades. These degradations put human health, food, and water security at risk, and diminish the capacity of Amazon's peoples and wildlife to adapt to further anthropogenic changes.

Models of extreme future high emission scenarios project “progressively higher warming that may exceed 6°C” – in the Amazon in the second half of the century, particularly during the dry season. Annual mean precipitation will decline in the Amazon, with more pronounced effects in the eastern and southern Amazon. An increase in precipitation is expected over the northwestern Amazon by the end of the 21st century. A major question is how much forest clearing, and in which locations, could lead to the crossing of tipping points and the spread of persistent, novel, lower biomass ecosystems over large areas.

A network of nearly 7,000 Indigenous territories (ITs) and protected areas (PAs) across eight countries and one national territory cover around 50% of the Amazon basin. This network is one of the cornerstones supporting the conservation of the biological richness of the region and the self-determination and land rights of Indigenous peoples. Although both ITs and PAs show lower deforestation rates than unprotected forested areas, they are under continuous threat from the expansion of the agricultural frontier, infrastructure, overlapping extractive concessions, and from “legal” procedures to change their limits and level of protection.

*“We consider that science, currently represented by the Scientific Panel, the Indigenous Peoples of the Amazon, the technology and our science with our Indigenous knowledge, come together in this report to give you a message of concern but also as a proposal to the world- to companies, to banks, and to governments. We want the will of the governments to move forward to save the Amazon and our communities.” - Gregorio Mirabal*

Reducing deforestation and forest degradation to zero in less than a decade is critical. Biodiversity and forest conservation strategies are a priority, and mechanisms include law

enforcement inside and outside protected areas, the integration of PAs and sustainable agroecological systems in sustainable supply chains, incentives to restore degraded areas, improvement of management and financial institutions, and forms of civil society and social movement engagement and new forms of environmental and resource governance.

Restoration and rehabilitation of more than 360,000 km<sup>2</sup> of degraded forest and 470,000 km<sup>2</sup> of deforested or abandoned agricultural lands in the Amazon is an opportunity available to both national and regional policy makers with long-term international commitments with direct benefits to local people. Planning restoration and remediation of freshwater habitats is essential because often these areas will not recover on their own. This requires technological solutions to restore water quality, and to reestablish hydrological dynamics and connectivity, as well as sustainable fishing practices as a key resource for local livelihoods. The restoration and rehabilitation of these abandoned lands could also be encouraged by environmental regulation. 20% of all deforested land in the Amazon is abandoned and are concentrated in the 'arc of deforestation' and alongside waterways and highways. To be effective, restoration and remediation must focus on priority areas in which multiple ecosystem services are maximized to a wide range of stakeholders across rural and urban networks.

*"Restoration will certainly play an important role in restoring water quality, forest cover or soil productivity in the Amazon. But we need to keep in mind that many restoration options have high costs and are rather complex to implement. Therefore, restoration should be seen as the last option. Our primary aim should be to conserve forests and waterbodies, thus avoiding the need for future restoration."* - Marcielos Pena-Claros

Cross-sectoral and collaborative work between governments, organized civil society, and local and Indigenous organizations for Andean-Amazonian connectivity offers a complementary opportunity. This includes integrating the management of PAs and ITs for biodiversity conservation, strengthening cultural connections and regional economic vitality across linked rural and urban systems, ensuring a coordinated response to hazards in the region, and promoting advanced international research and global intergovernmental cooperation. Strengthening cooperation between Amazonian countries' governments, civil society, financial institutions, the private sector, Indigenous peoples, and other local communities' organizations is vital to build 'the Amazon we want'.

The Amazon has immense potential to become the epicenter of a bioeconomy model that values healthy, standing forests and flowing-rivers, and promotes the well-being of its rural and urban populations. To enable the development of a sustainable and dynamic bioeconomy in the Amazon it is necessary to combat illegal activities and environmental crime, to strengthen the value chains of biodiversity products by merging scientific knowledge and traditional knowledge, to stimulate entrepreneurship, and to strengthen scientific and community ventures with public, private, national, and international investments.

*"The economy of the destruction of nature, which dominates the Amazon until today, must be replaced by a nature-based knowledge economy, capable of valuing socio-biodiversity and becoming a driver for fighting poverty and inequality in rural areas and in the cities."* - Ricardo Abramovay

The private sector has an important role as a driver of change. Companies, investment funds, and portfolios trading and utilizing Amazonian products are responsible and accountable for their sustainable production and should provide transparent information to consumers and investors.

The impacts on the Amazon affect the entire global community. Thus, global cooperation and mutual responsibility are essential for achieving the sustainability of the Amazon. The well-being of those who inhabit the planet today and of the generations to come depend on its conservation.

*“We are scientists who have been studying the Amazon and all its wondrous assets for many decades. Today, we stand exactly in a moment of destiny: The tipping point is here, it is now. The peoples and leaders of the Amazon countries together have the power, the science, and the tools to avoid a continental-scale, indeed, a global environmental disaster.”* - Carlos Nobre, Chair of the SPA and Thomas Lovejoy, member of the SPA Strategic Committee

### **About the Science Panel for the Amazon**

As a response to the pressing threats faced by the Amazon, and inspired by the Leticia Pact for the Amazon, which highlights the importance of research, technology, and knowledge management to guide decision-making, a group of respected scientists established the Science Panel for the Amazon (SPA) on 23 September, 2019, at the United Nations in New York on the eve of the UN Secretary General Climate Summit.

The Panel was [officially launched](#) on July 23, 2020, and is currently formed by approximately 200 scientists, two-thirds from the Amazon region, including Indigenous members, to debate, analyze, and assemble the accumulated and collaborative knowledge of the scientific community, indigenous peoples and local communities (IPLCs), and other stakeholders that live and work in Amazonian countries.

SPA is convened under the auspices of the United Nations Sustainable Development Solutions Network (SDSN). Carlos Nobre and Andrea Encalada are the Co-Chairs of the Panel, which was convened by world-renowned economist Professor Jeffrey Sachs President of SDSN. A number of global leaders participate on the [Strategic Committee](#), including chef and entrepreneur Gastón Acurio, conservationist AVECITA Chicchón, professor Luiz Davidovich, conductor Gustavo Dudamel, diplomat María Fernanda Espinosa Garcés, scientist Enrique Forero, Minister Valerie Garrido-Lowe, biologist Angel Guevara, Congresswoman Marina Helou, entrepreneur Guilherme Leal, professor Thomas Lovejoy, Coordinator of the Indigenous Organizations of the Amazon Basin José Gregorio Díaz Mirabal, former President of the Inter-American Development Bank Luis Moreno, Indigenous leader Beka Munduruku, former President of the Brazilian Development Bank André Lara Resende, Ambassador Rubens Ricupero, professor Fernando Roca, photographer Sebastião Salgado, Nobel laureate and former Colombian President Juan Manuel Santos, soccer professional Clarence Seedorf, chancellor Marcelo Sánchez Sorondo, UNDP Administrator Achim Steiner, and actress Christiane Torloni.

The SPA is developing a first-of-its-kind Report, that will be launched in the second half of 2021. During the HLPF, the Panel released versions of its [33 chapters in brief](#) and [a draft version of the full report](#) for public consultation.