



AMAZON+10 INITIATIVE



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INTRODUCTION

Everything about Amazonia calls for superlatives. It contains the world's largest tropical forest, with an area of approximately 5.5 million square kilometers, 60% in Brazil. Its hydrographic basin is the largest river system on Earth, spanning more than 7 million square kilometers in Brazil, Bolivia, Colombia, Ecuador, Guinea, Guyana, Peru, Suriname and Venezuela. It is home to enormous biodiversity, mostly in Brazil, where the Amazon Rainforest is the largest biome.

Amazonia accounts for a significant share of the planet's natural resources and plays a vital role in the provision of environmental goods and services, in the carbon cycle and in climate regulation. Its strategic importance is huge, in light not only of its economic resources, such as water and minerals, but also of such priceless assets as the knowledge, languages and cultures of the Indigenous communities who live there.

Water plays a crucial role in the maintenance of the tropical rainforest, supplying energy and nutrients to "three forest structures": *várzeas*, floodplains inundated periodically by whitewater rivers; *igapós*, blackwater-flooded swampy forest areas; and *terra firme* forest, which is never flooded and accounts for over 80% of Amazonia.

The region has been a magnet for scientists ever since Alexander von Humboldt's expedition in the early nineteenth century. It has highly productive universities and research institutions with a substantial track record in cooperation at home and abroad. Large-scale research projects like the LBA (Large-Scale Biosphere-Atmosphere Experiment in the Amazon) have permitted important advances in knowledge of the region's ecosystems and the relationships between nature and society there. These projects measure the impact of human activities, such as advancing deforestation, and evidence the region's enormous biodiversity and essential contribution to the regional and global climate. The scientific consensus points to the fundamental importance of conserving the forest for the planet's sustainability, while noting the challenge of "converting the value of the environmental services provided by the forest into monetary flows that can be used to keep the forest standing and sustain the human population that defends it". It should be stressed that many research projects present ways to mitigate adverse effects on Indigenous, riverine and urban communities, indicating a path to sustainable development of the region.

Although Amazonia has more natural biodiversity than any other part of Brazil, socio-economic development driven by forest-related activities has not yet reached its full potential. The region has not yet found ways of regulating and combating chronic problems such as deforestation and illegal mining. Land regularization is a huge challenge, and inclusive sustainable economic growth plans are lacking. Scientific research has an important role to play in a sustainable development program, by supporting evidence-based public policy and private and public investment decisions that lead to a transition to sustainability grounded in the valorization of sociobiodiversity. The Amazon biome is rich in biological diversity, but the region needs more investment in science, technology and innovation (ST&I), basic and applied research, and qualified human resources. Seeing the Amazon in terms of its uniqueness, potential, complexity and challenges is a necessary condition for understanding the importance of investment to promote science and technology as key drivers of its



development, while also taking sustainability and competitiveness into account.

Well-established guidelines to strengthen ST&I infrastructure in the region, expand the highly qualified workforce and promote scientific and technological research are strategic to the requisite advances. The region also undoubtedly has huge potential for innovation, production, processing, marketing and consumption of products derived from biodiversity on a sustainable basis.

The Amazon+10 Initiative will be built on this foundation. It aims to promote convergent ST&I activities that strengthen the guidelines and propositions established by the Strategic Plan for the Sustainable Development of Amazonia (Plano Amazônia Sustentável, PAS), surmounting obstacles, seizing opportunities for reafforestation of degraded areas, undertaking agricultural activities with low greenhouse gas emissions, adding value to the bioeconomy's production chains, producing food, drugs, clean energy etc., and guaranteeing access to basic services for the people who live in the region.

OBJECT

The purpose of the Initiative is to support scientific research and technological development relating to a better understanding of nature-society interactions and sustainable and inclusive development in the Amazon. Studies supported by the Initiative should increase scientific knowledge of the region and, in conjunction with relevant actors for public policy formulation, attract public and private investment that benefits the population consistently and in the long run.

INNOVATIVE NATURE OF THE INITIATIVE AND SPECIFIC GOALS

The Amazon+10 Initiative is innovative because (1) it involves research funding agencies (FAPs) in several states of Brazil in a globally relevant agenda, (2) it assigns to research the role of proposing sustainable and inclusive development solutions for the region, and (3) it will engage researchers in at least three Brazilian states in collaborative activities relating to each of the funded projects.

In light of this innovative nature, the Amazon+10 Initiative will:

- 1. Identify a wide array of concrete research challenges capable of contributing to solutions to real problems of the region;
- 2. Fund mission-oriented research that aims to help produce science- and technology-based solutions to real problems of society;
- 3. Strengthen the regional and intraregional ST&I infrastructure through training and attraction of highly qualified human resources to the region;
- 4. Fund collaborative research that demonstrates the involvement of local actors (civil society, ordinary citizens, leaders, government technicians and/or private enterprise) in the identification and prioritization of problems and potential solutions;



- 5. Mobilize local researchers and outside partners to pursue science- and technology-based solutions to problems of the region;
- 6. Integrate scientific and traditional knowledge of the region produced to date;
- 7. Engage the local community in the Initiative by building an approach that focuses on its ultimate beneficiaries;
- 8. Give back know-how to communities in the region, in accordance with the principles of open science;
- 9. Widely communicate the results of funded research projects to Brazilian researchers in Brazil and abroad, public and private research funders in Brazil and abroad, private-sector companies that operate in the region, international investment funds, local governments, NGOs with activities in the region, regional, national and international media, and society in general.

GOVERNANCE

The Amazon+10 Initiative is a project of state research funding agencies (FAPs), which in a General Assembly of CONFAP have ratified the contents of this document and set up a working group to facilitate joint actions by themselves and other partners, such as public and private institutions in Brazil and abroad that wish to contribute via actions and donations to the Initiative's research agenda.

The proposed governance framework will coordinate actions by the entities involved in the Initiative, so as to assure joint activities and projects for the Amazon biome with dialogue and transparency.



Steering Committee: The members of this committee will include a representative of each of the FAPs for Legal Amazonia (ex officio members), a representative of each of the FAPs that sign the Initiative's partnership agreement, and representatives of donors that contribute at least five per cent (5%) of the sum of the contributions of the participating FAPs. The Steering Committee is responsible for establishing the Initiative's strategic direction and for raising funds from private enterprise, legal entities, individuals, official funding agencies and similar sources in Brazil and abroad, and for electing the members of the Executive Committee and the Technical and Scientific Committee.



Executive Committee: Elected by the Steering Committee from among its own members and comprising representatives of three FAPs, the Executive Committee is responsible for coordinating the issuance of calls for research proposals, commissioning projects and proposals for referral to the Steering Committee, and maintaining institutional relations with potential partners. It undertakes to ensure that the procedure for analyzing proposals submitted in calls is characterized by technical and scientific rigor and impartiality, considering the context of the application of knowledge to the solution of problems prioritized in its actions. It is also responsible for requesting support from private research funders, inviting institutional partners to participate in the Initiative by making monetary donations or directly funding researchers, and establishing the rules for using funds contributed by partner institutions in negotiations with such institutions.

Technical and Scientific Committee: The members of this committee will be appointed by the Steering Committee, comprising at most seven researchers recognized in their respective areas of activity and with long experience of managing research institutions and projects on matters relating to the Amazon, especially sustainability, bioeconomy and improvement of the living conditions of the region's population. If more than seven researchers who meet the admissibility criteria are nominated, the seven members of the Technical and Scientific Committee will be elected by the Steering Committee. The Technical and Scientific Committee advises the Executive Committee on the selection of scientific themes to be explored and support by the Initiative. It may invite academics and non-academics who are experts in their fields to help assess proposals submitted to the Initiative. When so requested, it prepares technical opinions for commissioned framework projects and may resort to ad hoc reviewers or consultants for this purpose.

Executive Secretariat: The Secretariat is appointed by the Executive Committee and comprises representatives of the three FAPs with seats on the Executive Committee. It coordinates the preparation of calls for proposals and the commissioning of projects and proposals for submission to the Executive and Steering Committees. It also organizes the monitoring and overall evaluation of the Initiative and the projects funded by the Initiative. It is responsible for constructing indicators, surveying the sector for best practices, and promoting communication and cooperation by all beneficiaries of the funding provided by the Initiative. The main purpose of its activities is to treat funded projects in a program and portfolio context, while each FAP is responsible for analyzing its scientific and financial reports individually. If so requested by the Executive Committee, the Secretariat may also employ professionals, via CONFAP or via member entities and partners, to provide operational support for the day-to-day activities and administration of the Initiative.

LEGAL MODEL

CONFAP will coordinate the Initiative as a not-for-profit private-law civil association with its own legal personality and administrative autonomy. CONFAP is governed by the Civil Code and by its own bylaws, which support the Initiative's mission by stating in article 3 that CONFAP "(a) functions as an entity for coordination and organization of the interest of the FAPs"; "(e) functions as an instance of technical cooperation"; and "(h) stimulates the creation and implementation of regional and national science, technology and innovation programs".



Within CONFAP, the General Assembly will deliberate on the functioning of the Initiative, given that it is a deliberative and normative body, and that in accordance with article 11 of CONFAP's bylaws the GA is responsible for formulating CONFAP's general policy by establishing guidelines and action priorities (11.I); approving the creation of working groups and appointing their members (11.XVI); and deciding on matters not covered by the bylaws (11.XX).

CONFAP's bylaws also state that donations may be assets held by CONFAP (article 32.III) and that CONFAP's revenue may include "other sources", such as donations (article 33.IV).

In this context, the Initiative will have three main operating mechanisms:

- Multilateral agreements: The FAPs that participate in the Initiative may at their own discretion join or not join calls for proposals or the commissioning of projects proposed by the Executive Committee. If they join in, they undertake to analyze the merit and contribute funds to support institutions and researchers in their own states;
- 2. Institutional partnerships: Institutions that support public or private research activities in Brazil or abroad and have mechanisms to enter into contracts for projects, whether or not they are members of the Steering Committee, will be invited to provide direct support for the institutions and researchers responsible for the projects selected for the Initiative;
- 3. Donations: Donors that do not have mechanisms to enter into project contracting, or for whatever reason prefer not to do so, will be free to contribute funds via a separate account at CONFAP, which will disburse the funds to institutions and researchers responsible for the projects selected and based in the states of Legal Amazonia.

For the purposes of the above items, CONFAP's General Assembly, in accordance with article 11 of its bylaws, approved the creation of a working group for the Amazon+10 Initiative, establishing the rules for its functioning, governance, internal control and transparency mechanisms, and the ways and means for raising and investing the requisite funds.

FAPs that wish to join the Initiative will be co-signatories of a Participation Agreement, which will entitle them to have a representative on the Steering Committee and the Technical and Scientific Committee and to specify the amount of money they will contribute to the Initiative during the five years of its duration.

The CONFAP working group and/or its General Assembly may at any time establish other mechanisms for fundraising and allocation, if deemed appropriate.

RESEARCH AREAS AND PRIORITIES

The Executive Committee will be responsible for drafting calls and commissions for projects and proposals in the following research areas:

- Biodiversity and climate change
- Bioeconomy



- Biotechnology
- Improvements to the living conditions of the population of Amazonia
 - Family farming
 - Traditional populations
- Land use
 - Deforestation
 - Fire
 - Mining
 - Conservation units
 - Land regularization
 - Green technologies

For the purposes of the Initiative's activities, these research areas will be organized into groups in accordance with the overarching logic of a sustainable transition, as follows:

- Group 1: Territories with infrastructure and logistics that facilitate multiscale sustainable development
- **Group 2:** Inhabitants of Amazonia as protagonists of knowledge of biodiversity and its valorization and of adaptation to climate change
- **Group 3:** Strengthening of sustainable production chains by the Amazonians

LINES OF ACTION

The following lines of action will be observed in the activities of the FAPs and will serve as indications for institutional partnerships and donations:

Strategic projects: High-impact applied research projects, commissioned or not, of interest to at least three FAPs in different states of the North and FAPs in other regions that allocate funds to the Initiative.

Calls for proposals: Competitive biddings for funding to support research on subjects selected by the Executive Committee and involving at least three FAPs in different states of the North and FAPS in other regions that allocate funds to the Initiative.

Innovation and prototyping: Research projects on the Amazon region with the potential to contribute to public policy making and orient public and private investment that will help surmount the obstacles to full use of the region's resources. This line of action will aim to close the gap between science and technological development by fostering knowledge transfer and corporate innovation, especially by tech startups. In pursuit of significant results, this line of action will seek engage different actors to (1) address relevant challenges to the region's development; (2) select, support and seek complementary sources of funding for projects; (3) conduct applied research, including prototyping and pilot projects for the proposed solutions; and (4) support practical application of the technological solutions developed and assessment of their economic



and environmental sustainability and scalability. This line of action includes, without limitation, calls for proposals to be developed by startups or in partnership with private enterprise.

Mobility: This line of action supports short and medium term research internships for secondary school students, undergraduates and graduates to do part of their scientific initiation, master's, direct doctorate, doctorate and postdoctoral research at higher education and research institutions in Amazonia. The importance of exchanges between researchers in formation and research groups at other institutions is recognized as a strategy to increase the efficacy and efficiency of ST&I systems. The cost can be borne by FAPs as well as public and private partners that wish to join the Initiative. Attraction of foreign students and researchers to institutions in the Amazon region is particularly important.

Regional ST&I infrastructure: This line of action strengthens the regional research infrastructure by supporting ST&I and higher education institutions in Amazonia. It is widely recognized that the availability of robust high-quality research facilities is crucial to successful scientific and technological production and growing innovative opportunities in the region. Activities of particular interest that have contributed to the strengthening of ST&I institutions in the region, repositioning them as leading biotechnology centers, include the funding and installation of the following facilities as priorities: (1) physical and virtual repositories of Amazonian biodiversity; (2) libraries of natural compounds extracted from biodiversity; (3) data centers for development of biotechnology; and (4) laboratories for identifying and researching natural active principles.

Scientific expeditions: The region has universities and research institutions that are highly active in studying the Amazon, with a long track record in cooperation at home and abroad. Large-scale research projects like the LBA (Large-Scale Biosphere-Atmosphere Experiment in the Amazon) have permitted important advances in knowledge of the region's ecosystems and the relationships between nature and society there. Taking advantage of this rich history and the region's significant ST&I capacity, the Initiative will seek to establish formal cooperation between Brazilian and foreign institutions on joint scientific or technological research projects involving field or laboratory work. Scientific data and material, biological and mineral specimens, and objects belonging to Indigenous and popular culture, present and past, will be collected and catalogued, enabling better use of the Amazon's substantial natural and social resources in future. It is widely accepted that knowledge of the Amazon's outstanding biodiversity and genetic heritage is scant. Scientific expeditions will be undertaken to identify taxonomic groups among birds, reptiles, amphibians and mammals, as well as microbiota. Proper safekeeping and cataloguing of all the collected material at institutions located in the region, as well as publication and sharing of the results of the expeditions with the Brazilian scientific community will be necessary conditions for their execution under the aegis of the Initiative. They must comply with the formal requirements for the projects proposed and be justified as contributing to Brazil's scientific and technological development. The organization of regular scientific expeditions in the next five years, focusing above all on protected environmental areas, will expand knowledge of local sociobiodiversity and help strengthen partnerships between research institutions and Brazilian and foreign organizations. Researchers with varying origins will become acquainted and encouraged to work on the local research infrastructure building agenda. Expeditions will also mobilize financial resources to complement funds from public and private donors.



FUNDRAISING

CONFAP will set up a separate account in which to deposit the following kinds of cash donation from legal and natural persons, to be formalized in private instruments: (a) unrestricted donations to be used at the sole discretion of the Steering Committee; (b) special-purpose donations, to be used to fund specific projects previously announced by the Initiative.

Receipt of funds must be formally acknowledged by means of an administrative procedure embodied in the following documents: (a) a donation proposal; (b) documents referring to the donor's legal personality and legal capacity; (c) an analysis by the Executive Secretariat; (d) the Executive Committee's approval; (e) a signed donation deed.

Donations must be perpetual and irrevocable. Donors may not receive financial income or material benefits of any other nature from their donations. Contributions to the Fund will be entered into its accounting records as the sum of the amounts stated in the Participation Agreements and actually contributed by partners of the Initiative. Fundraising will continue for the duration of the Initiative.

TIMETABLE

The duration of the Initiative will be five years, renewable for another five years if its constitutors so decide. Throughout the duration of the Initiative, events will be held to publicize its activities and exchange good practices between supported projects, especially in the third and fifth years from the first call for proposals.

INTELLECTUAL PROPERTY

Under the rules governing the Amazon+10 Initiative, the IP rights relating to projects supported by the Initiative will belong to the host institution and any partners responsible for the research, so as to encourage the development and diffusion of inventions, software and publications, while enhancing their utility, accessibility and evolution.

The participating FAPs reserve the right to verify and ensure, as a condition for funding, that all participants in a research project have entered into an agreement on IP rights among themselves. These partners will have full discretion to decide on how to share ownership of the IP rights to their research results. Protection, management and commercialization of the IP rights to their research results will be the sole responsibility of the partners. The FAPs will have no responsibility for these rights.

The FAPs will require the institutions and researchers supported by the Fund to submit regular reports on the protection and commercialization of IP rights, if they so wish. Such requirements will be detailed in advance in the joint calls for proposals.



COLLABORATORS

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