



The Amazon Basin is the world's largest tropical ecosystem. It contains one-fifth of the planet's available fresh water, harbors an infinity of fauna and flora species, and has the world's largest genebank. Yet the region suffers deforestation, its natural resources are being degraded, and vulnerable rural communities are being threatened. Inappropriate pasture management, unsustainable slash-and-burn agriculture, large-scale commercial agriculture, and uncontrolled timber extraction are causing the emission of greenhouse gases, which contribute to global climate change.

To confront these challenges, the international consortium, Amazon Initiative, together with the Consultative Group on International Agricultural Research (CGIAR),¹ proposed the Amazon Initiative Eco-regional Research Program (AI-ERP) in mid-2006. The program began its activities in late 2008 and aims to contribute to sustainable development and natural resource conservation, and mitigate poverty.

It operates under four thematic areas:

- Mitigation and adaptation to climate change.
- Sustainable production in deforested and degraded lands.
- Maintenance of forest ecosystem services and human well-being.
- Development of market-value chains for Amazonian products.

Ongoing collaborative research

The AI-ERP provides a framework for new collaborative research, while coordinating Amazon Initiative's first collaborative projects, both scientific and extension, approved since 2007. These research efforts aim to provide guidelines for policies, and develop technological and institutional innovations, which would help maintain environmental services, improve living conditions in the Amazon Basin, and simultaneously encourage sustainable land use. These projects are described below.

Amazon Livelihood and Environment Network (RAVA)

This network uses a collaborative, interdisciplinary, and systematic research approach to analyze the living conditions of Amazon communities and evaluate how forestry, agroforestry, and agricultural activities can contribute to their well-being while also helping to conserve the environment. A database on the Amazon communities' current situation is being systematized. Training opportunities are also offered, and interinstitutional

agreements to carry out R&D activities are being strengthened.

Impact forecast and assessment of climate change on agro-forestry systems

This study predicts and assesses the impact of climate change on agroforestry systems in the Aguaytía River watershed (Peruvian Amazon) and Chimborazo River micro-watershed (Ecuadorian Andean Region). Its goal is to promote local agroforestry development that is replicable in other Amazonian regions.

Adaptation to climate change by smallholders in the Brazilian Amazon

The effects of climate change on rural activities (e.g., fishing and timber extraction) are being studied to generate analytical tools to support policymakers in designing strategies for adaptation to climate change and other risks.

Managing ecosystems sustainably for poverty alleviation

A situation analysis of ecosystem services and poverty in the Amazon and Eastern Andes is carried out to provide guidance to the Ecosystems Services for Poverty Alleviation Programme (ESPA)

1. For an explanation of acronyms and abbreviations see www.ciat.cgiar.org/newsroom/pdf/acronyms_syntheses.pdf

of the British Government to prioritize research and capacity-building activities. The analysis is embedded in a stakeholder consultation process, in which relevant stakeholders contribute to improving and validating its outcomes.

FRUTAM

If the competitiveness of production chains of Amazon fruits is improved, then the degradation of natural resources can be mitigated, and the living conditions of small rural producers can be improved. The project aims to develop the economic, productive, and commercial potential of five fruit species native to the Amazon: cupuaçu (*Theobroma grandiflorum*), peach palm (*Bactris gasipaes*), camu-camu (*Myrciaria dubia*), morichal palm (*Mauritia flexuosa*), and milpesos palm (*Oenocarpus bataua*).

Peach palm

This project characterizes the peach palm in terms of its physico-chemical (e.g., carotenoid content) and functional properties (e.g., bioavailability). By discovering its genetic variability for the nutritional and dietary attributes preferred by consumers and markets, the project and its partners aim to give added value to this fruit.

GESTABACIAS

This study led by Embrapa (an AI founding member) focuses on the watershed as a unit for planning and managing the natural resources of the Amazon Region (NE Pará, Brazil). The project evaluates the potential of alternative agricultural and livestock production systems to simultaneously help deliver ecosystem services and improve the quality of life of local inhabitants and small livestock producers.

Activities and results, one year after implementing the AI-ERP

- AI-ERP has made significant advances in institutional aspects, defining a model for the participation of CGIAR centers and the operation of collaborative activities.
- Common priorities were defined for collaborative activities, ideas exchanged, and joint development of project proposals initiated.

- The environmental services working group composed of researchers from AI member organizations has prepared feasibility assessments of payments for avoided deforestation for the environmental Ministries in Brazil and Peru.
- Edited volume on Agroforestry Alternatives for an Amazon in Transformation published with 40 chapters by 85 co-authors, most of them from national research institutions.
- Submitted concept notes to donors on harnessing environmental services (INIA–Spain); enhancing value-added chain development for Amazonian palm products (IDB); and sustainable development of the frontier triangle between Brazil, Bolivia, and Peru (IDB).
- Began participating in a scoping study on multiple-use forest management in Brazil, Peru, and Ecuador.

Partners

CATIE • Embrapa • GTZ • IIAP • INIA-Peru • INIA-Venezuela • INIAF-Bolivia • OTCA • SINCHI-Colombia • UNAMAZ

CGIAR centers

Bioversity International • CIAT • CIFOR • ICRAF

Donors

BMZ • FONTAGRO • INIA–Spain • World Bank

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