Hand-in-Hand Initiative

Executive Summary Amazon Bioeconomy Investment Program

Food and Agriculture Organization of the United Nations

ACTO
Amazon Cooperation Treaty Organization

Participating Countries

- Bolivia
- Brazil
- Colombia
- Ecuador
- Suriname
- Guyana
- Perú
- Venezuela

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General Overview of the Amazon

Scale and Population

The Amazon covers 6.9 million square kilometers and is home to more than 50 million people, including 400 indigenous peoples. 60% of the population lives in urban areas.

Economy and Resources

The Amazon accounts for 20% of food commodity exports from ACTO countries, with more than 200,000 people involved in fishing. The Pan-Amazonian Gross Domestic Product (GDP) is USD 434 billion (WB, 2023).

Biodiversity and Global Relevance

The Amazon is home to 10% of the world's terrestrial biodiversity and 20% of the world's freshwater. It contains 60% of Latin America's forest cover (237 million hectares), playing an essential role in stabilizing the Earth's climate, absorbing ¼ of the CO2 generated on the planet.

Challenges in the Amazon region

Poverty and social exclusion

Higher levels of hunger and poverty

Rural populations in the Amazon region have higher levels of social exclusion and unsatisfied basic needs.

Low per capita incomes

More precarious, informal working conditions, without labor benefits or social protection.

Information and governance gaps

Little or no information on the socioeconomic profile of Amazonian settlements and resource use (ORA, 2018).

Information scarcity limits policy articulation and territorial management at the regional, national and subnational levels.

Environmental threats

Changes in land use are some of the main drivers of forest loss: Unsustainable agricultural practices, mining, illegal activities and urban sprawl.

Risk of reaching a point of no return, commonly known as the “Amazon tipping point.”

Poverty in the Amazon

31.6%

Poverty in the Amazon

vs 23.6% national averages

10.1%

Extreme Poverty

vs 8.1% national averages

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Renewed Political Commitment

Belém Declaration

ACTO's 2023 Belém Declaration signed by the 8 Amazonian Heads of State.

Green Coalition

Green Coalition among development banks

ACTO Ministerial Resolutions

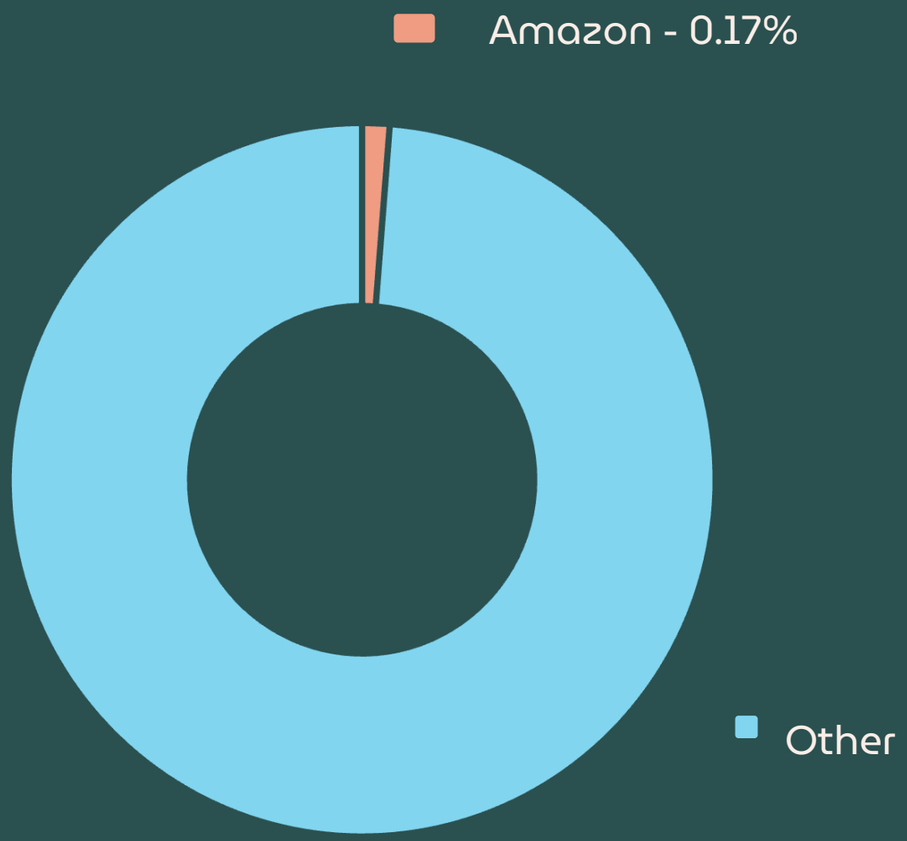
RES/XIVMRE-OTCA/04: Institutionalization of the **Amazon Regional Observatory.**

RES/XIVMRE-OTCA/11: Strengthening production, distribution and trade systems for **regional bioeconomy products.**

RES/XIVMRE-OTCA/19: Cooperation in **sustainable management of water resources**

RES/XIVMRE-OTCA/23: Feasibility of joint investments in (...)innovation that will enable the development of **new technological solutions.**

Investment Climate



- The circular bioeconomy will represent a business opportunity of USD 7.7 trillion by 2030 (WBCSD).
- The Amazon's current share of this projected market is only 0.17%, even though the Amazon rainforest represents 54% of the world's tropical forests.
- The Amazon region is well positioned to increase its relevance within the global bioeconomy market, if the right investments and strategic steps are implemented in the short term.

Objective of the Investment Program

Identification of responsible investment opportunities to unlock the potential of the Amazon bioeconomy.

Methodology: use of HIH geospatial, biophysical and socioeconomic data, as well as advanced analysis, to identify territories where rural transformation has the greatest potential to reduce poverty and hunger.

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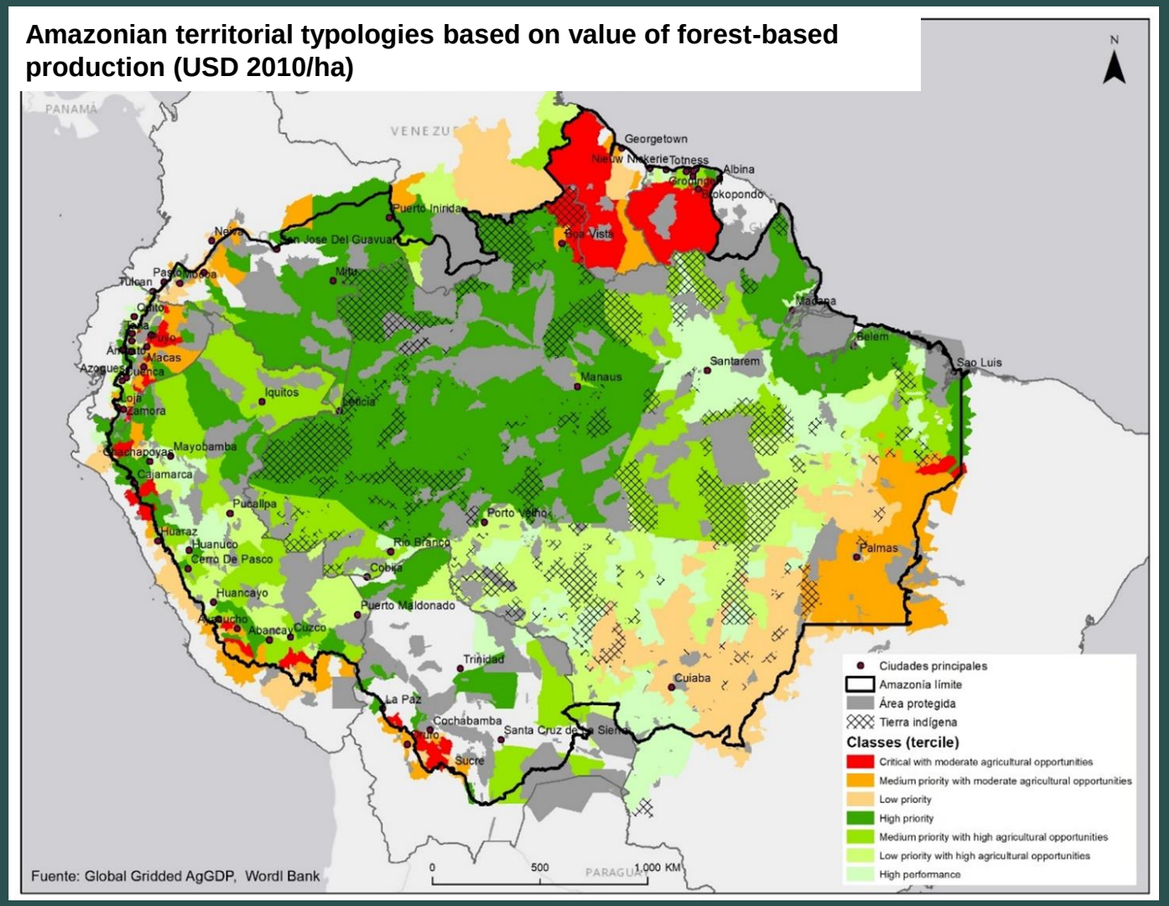
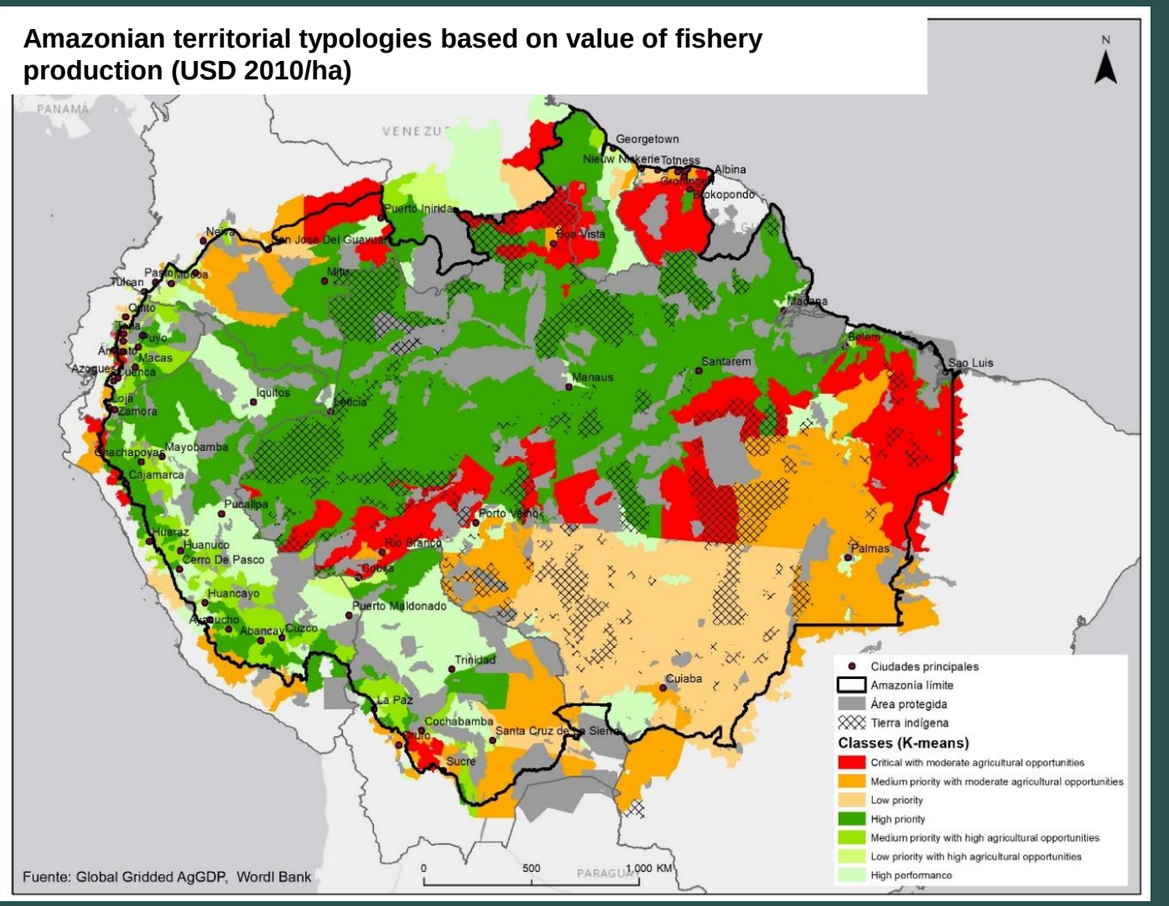
HiH Territorial Typologies

Amazonian territorial typologies based on value of forest-based production (USD 2010/ha)



Forestry Typology

Amazonian territorial typologies based on value of fishery production (USD 2010/ha)



Fishing Typology

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Challenges and risks for inflows of private investment

Weak institutional environment

Asymmetry in information access and quality

Limited access to digital solutions

Lack of standardized management frameworks and practices

Program Safeguards

Respect for indigenous peoples and traditional communities

Respect the rights, territories, traditional ways of life and knowledge systems of Indigenous Peoples and other traditional communities.

Protection of the Amazon ecosystem

Avoid the Amazon rainforest tipping point.

Sustainable agriculture

Guarantee sustainable agricultural practices

Reduction of inequalities

Reduce the high levels of food insecurity, poverty, and social and gender inequalities.

Three Investment Streams

Strengthening of information management systems linked to the Amazon Regional Observatory (ORA).

USD 19.2 Million

Territorial Digital Ecosystems

USD 29.2 Million

Sustainable management of Amazon fishery resources

USD 40.9 Million

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Note 1. Promote territorial governance by strengthening the information management systems linked to the Amazon Regional Observatory (ORA).

Challenge

Asymmetry in access to information and the need to increase technological capabilities.

Objective

Strengthen the Amazon Regional Observatory (ORA) as a regional public good to improve territorial management.

Investment Type

Priority is given to public investments to strengthen information systems, both at the national and regional levels.

Partners

World Bank, GIZ, USAID, Agence Française de Coopération (AfD), Nexus

Total Investment Amount

USD 19.2 Million

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Main Challenges and Opportunities

Main Challenges

Volume of data reported by member country	31%
Software processing capacity	62%

Opportunities

It is estimated that 70% of the new value created in the economy over the next decade will be based on business models involving digitally empowered platforms.

Note 1 Components

Strengthening national capacities

Strengthening national capacities and capacities of public institutions engaged in information management in ORA-related issues.

USD 1,404,000

IRR 26%
NPV USD 34.6 million
Total – 19,187,600 over 5 years

Strengthening ORA

Strengthening and institutionalizing ORA as a world-class point of reference.

USD 17,213,600

Technological Diplomacy

Strengthening technological diplomacy to improve the environment for the exchange of critical information.

USD 570,000

Note 2 - Strengthening digital ecosystems in the Amazon

Challenge: Internet penetration rate in the Amazon (51%) is lower compared to the average national rate among ACTO countries (77%). Digital access gap of 26%.

Objective: Establish digital ecosystems in rural Amazonian regions to improve the population's living conditions and promote the traceability of selected bioproducts.

Investment Types: Public and private

Total Investment Amount: USD 29.2 million

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Main Challenges and Opportunities

Challenges

Population without internet access	About **25 million people** in the Amazon do not have internet access.
Digital access gap	The digital divide in the Amazon region is 26%. 51% in the Amazon vs. 77% national averages.
Traceability	Improved traceability - European Union's anti-deforestation regulation

Opportunities

The introduction of digital financial services in agricultural communities has increased banking access by up to 20% among smallholder farmers (CGAP).

Açaí: Açaí production in Brazil is insufficient to meet the demand of internal and external markets. Growing demand as a “Superfood”.

Cocoa: 50% of the growth in Brazil’s cocoa production will originate from the Amazon.

Every dollar invested in digital technologies has a multiplier effect of USD 20 on GDP (Huawei and Oxford Economics).

Note 2 Components

Infrastructure

Connectivity, solar energy, storage and licensing.

Investment Type: CAPEX/OPEX

USD 18,860,000

Users

People, communities that access and use the infrastructure, applications, and services.

Investment Type: CAPEX/OPEX.

USD 10,120,000

Applications

Software development, programs, platforms

Investment Type: OPEX.

USD 151,200

Services

Banking, e-commerce, productivity.

Investment Type: OPEX.

USD 151,200

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Note 2 Cost-Benefit Indicators

$25.5M	12%	$29.3M
NPV	IRR	USD Value
Net Present Value of the project	Internal Rate of Return	Total Project Value

Scope

100 territorial digital ecosystems

Increased traceability of Amazon bioproducts

Direct Beneficiaries: 5,000 açaí and cocoa producers / 45,000 indirect beneficiaries

Employment Opportunities for family producers in agroforestry systems

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Note 3: Sustainable Management of Amazon Fishery Resources

Challenges: Lack of regional governance mechanisms for fisheries, poor information and risk of overfishing.

Objective: Improve the common management of water basins in relation to fishery resources, seeking to establish a sustainable and ecosystemic management approach in the Amazon. Identify opportunities in the large catfish fishing value chain.

Investment Types: Public and private

Total Investment Amount: USD 19.9 million

Challenges and Opportunities

The main basin of the Solimões/Amazon River is responsible for an estimated annual gross revenue of ~ USD 436 million.

There are an estimated 7,531 fishing boats and over 160,000 commercial and subsistence fishermen.

Generates approximately 168,000 jobs.

452,000 tons per year of fish are produced in the Amazon (commercial and subsistence).

Fish of the genus Brachyplatystoma (Dorada, Piramutaba and Filhote) are target species throughout the Amazon basin and represent 17% of commercial landings.

Lack of information on the current state of fish stocks.

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Note 3 Components

1. Collective management

Strengthen agreements and common guidelines for the use of fishery resources in the Amazon Basin.

USD 2,496,196

2. Connectivity

Fleet security and monitoring/

On-board maps using technology

3. Consumption and sale

Added value -
USD 9,630,348

Transportation, handling -

USD 8,452,783

Origin stamps and traceability -
USD 2,849,858

4. Sustainable management

Education and research
USD 14,021,908

Strengthening fishing organizations.
Technical assistance -
USD 3,473,739

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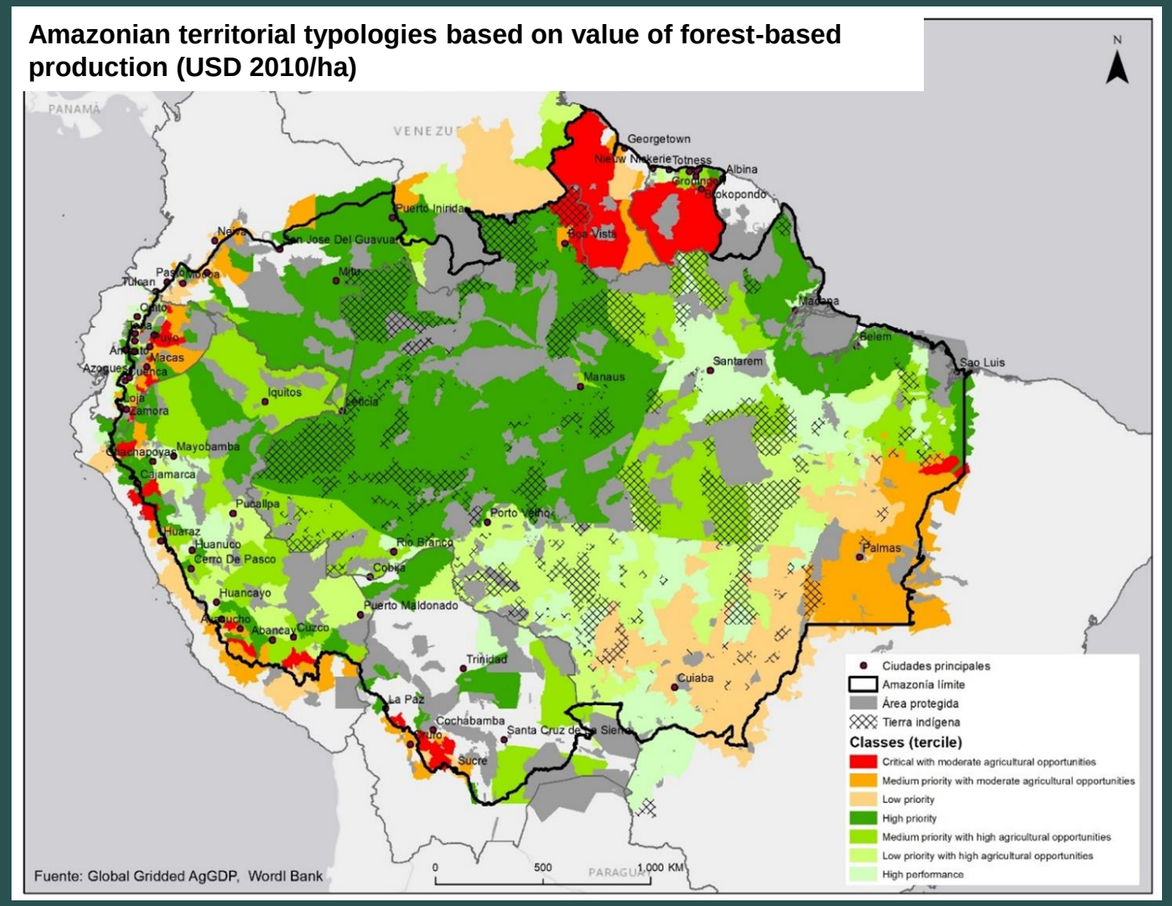
Digital Connectivity Points

Amazonian territorial typologies based on value of forest-based production (USD 2010/ha)



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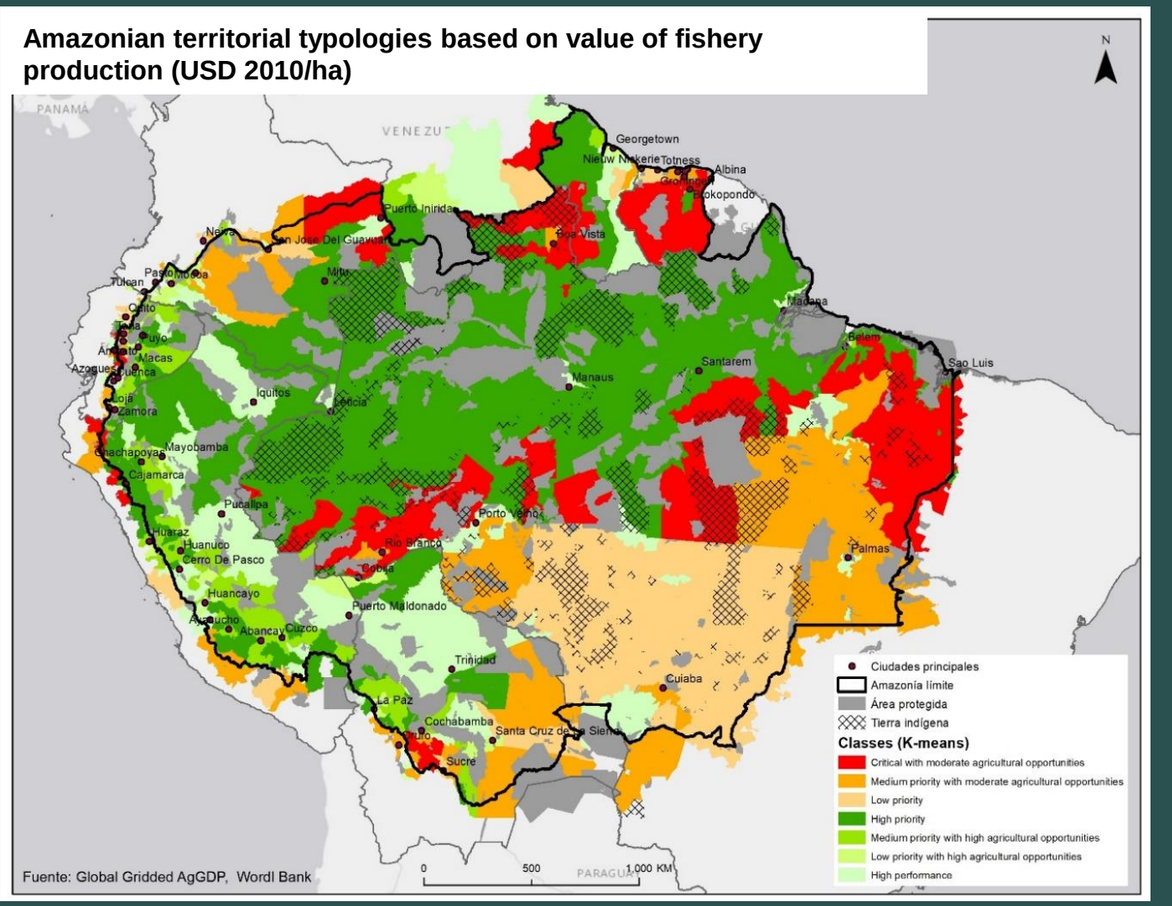

Forestry Typology

Fishing Typology

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Summary of Amazon Bioeconomy Investment Program

$89.9M

Total Value

of investments

20.4%

Average IRR

14.5K

Direct beneficiaries

57K

Indirect beneficiaries

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Note Summaries

Note 1: Information Systems

Strengthening the information management systems linked to the Amazon Regional Observatory (ORA).

Cost: USD 19.2 million

IRR: 26%

NPV: USD 34.6 million

Direct beneficiaries: 8 ACTO countries

Note 2: Digital Ecosystems

Strengthen digital ecosystems in the Amazon to improve rural livelihoods and boost traceability of selected bioproducts.

Cost: USD 29.2 million

IRR: 12%

NPV: USD 25.5 million

Direct beneficiaries: 5,000 families

Indirect beneficiaries: 45,000 families

Note 3: Sustainable Management of Fishery Resources

Sustainable Management of Amazonian Fishery Resources

Cost: USD 40.9 million

IRR: 23.3%

NPV: USD 20.6 million

Direct beneficiaries: 9,500 families

Indirect beneficiaries: 12,000 families

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