12nd World General Assembly of INBO, Bordeaux, France

ACTO
Amazon Cooperation Treaty Organization

Transboundary Water Management in a Context of Climate Variability: Experiences from ACTO

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ACTO

Amazon Cooperation Treaty Organization

POPULATION

Amazon Basin: 50 million inhabitants.
420 indigenous peoples.
370 languages.

WATER RESOURCES

Regional and global water reserve
Regulates the climate of the planet and the region

ECONOMIC ACTIVITIES

53% of agricultural activities.
31% of trade.
16% of manufacturing.

HYDROLOGY

Output flow: 220,000 - 300,000 m3/s in the rainy season.
Length: 6,992 km
Watershed:
6,118,000 km²
Main contributors: Putumayo, Japurá and Río Negro, Juruá, Purús, Madeira, Tapajós and Xingu.

Belem Declaration

Declaration of Belém

16 Topics

29 Resolutions

113 Objectives

The main impacts of climate variability and change in the Amazon Basin

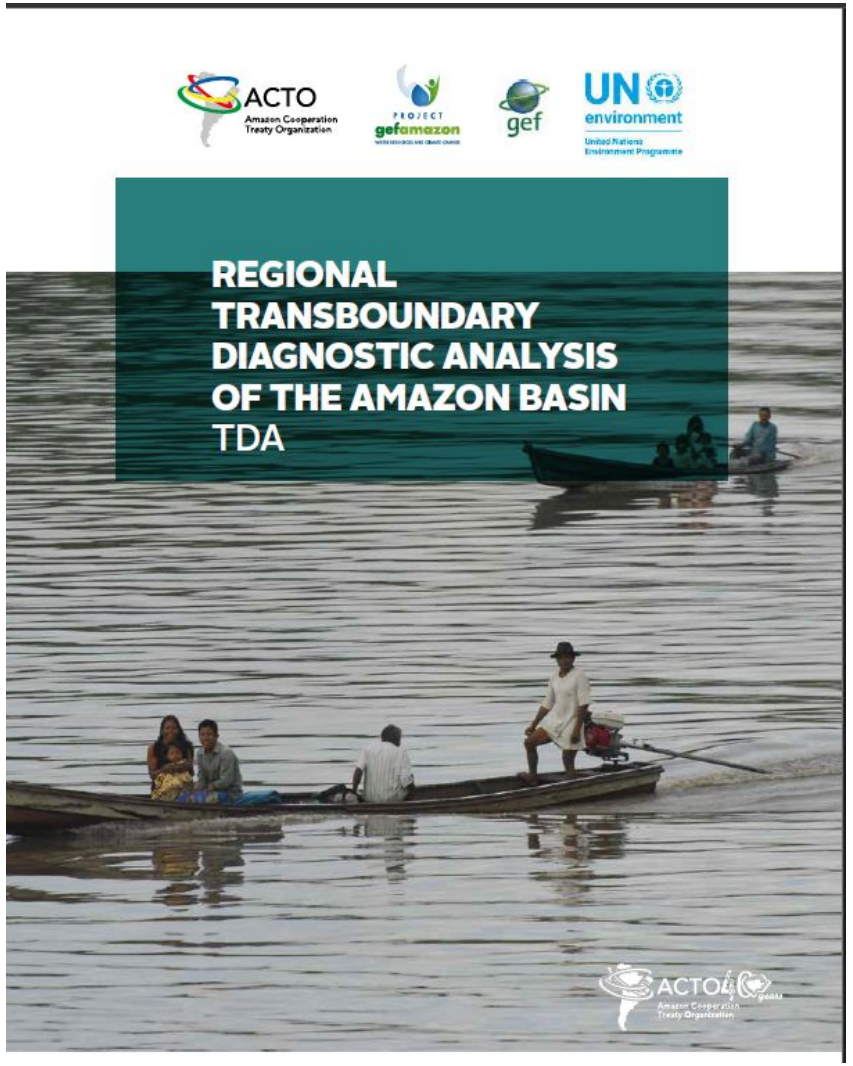


TABLE 5. EXTREME HYDROCLIMATIC EVENTS.

IMPACTS / CONSEQUENCES	
Environmental	Socio-economic
▪ Disruptions in ecosystem food chains ▪ Limited navigation ▪ Water pollution ▪ Changes in the physicochemical characteristics of water because of increased whole solids in suspension ▪ Loss of biodiversity ▪ River fauna poisoned by mercury ▪ Loss of crop area ▪ Loss of landscape diversity	▪ Public health risks ▪ Rising food prices ▪ Economic losses due to transportation costs ▪ Impact on ecotourism ▪ Economic losses related to productive activity ▪ Loss of human life

Timeline of the Construction of Transboundary Water Governance in the Amazon Region in a Context of Climate Variability and Change

PROYECTO gefamazonas
RECURSOS HÍDRICOS Y CAMBIO CLIMÁTICO

Proyecto GEF AMAZONAS (7M)

PPG GEF

Proyecto Cuenca Amazónica (11,7 M)

2010

AT BID (1,1 M)

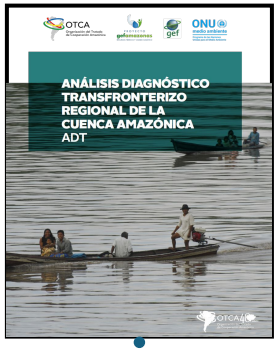
PPG (GEF) Groundwater

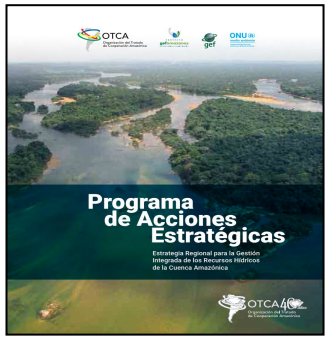
CAF (0.5 M)

EUROCLIMA (0,45 M)

GEF Amazonas Project (7M)

Visión Compartida





Preparación y Aprobación PPG

gef Cuenca Amazónica
IMPLEMENTACIÓN DEL PAE

Execution of the Amazon Basin Project 11.4 M

Inception Phase

Project Implementation

2010 2012 2015 2016 2017 2018 2019 2020 2021 2024 2025

Today

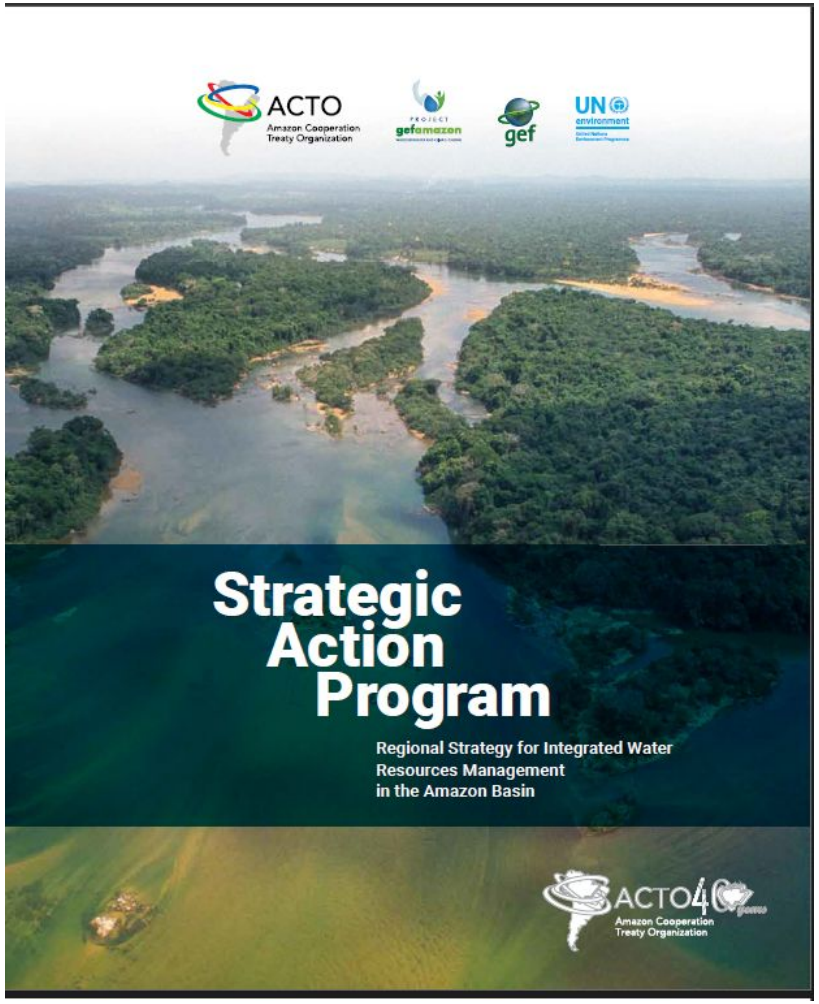
NEXUS

Preparation and Approval

Climate Change Module

IP Climate Change Module

Strategic Action Program: improving Transboundary Water Management in the Amazon (SAP)



• Regional Strategy for IWRM, endorsed by the 8 Member States (2017).

• Strengthening water governance (regional and national level) for water security and climate change adaptation in response to the main transboundary problems.

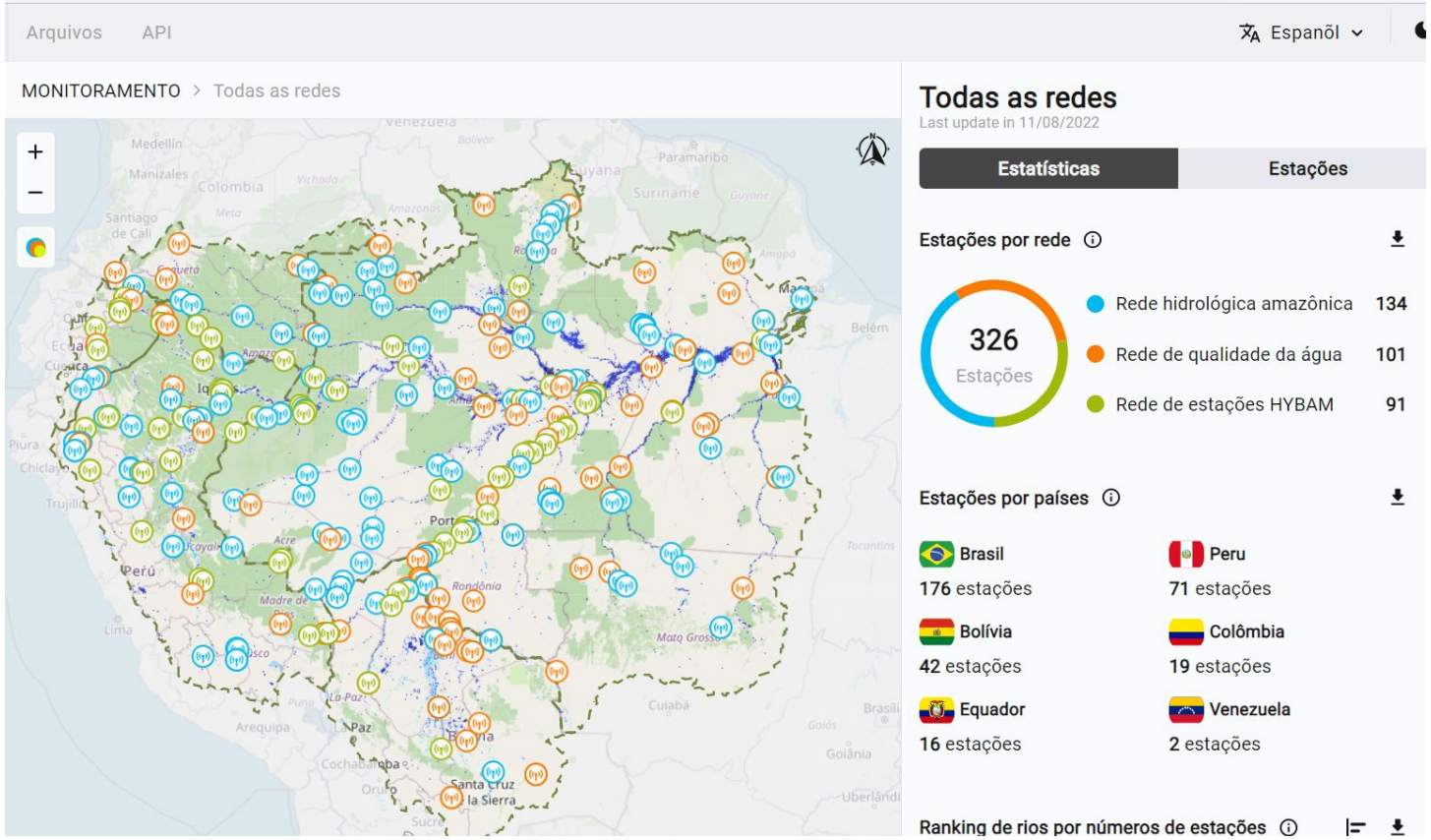
• Permanent IWRM Coordination Mechanism for the Amazon Basin will be established at ACTO:

- ✔ Based on agreed common principles and standards,
- ✔ Information sharing mechanisms and regional IWRM information platform,
- ✔ Financial instruments and gender mainstreaming
- ✔ Regional cooperation mechanisms for IWRM.

• Strengthening the abilities of Amazon communities to adapt to extreme climate events and promoting regional water resources and environmental monitoring.

Amazon Regional Observatory
www.oraotca.org

ORA
AMAZON REGIONAL OBSERVATORY



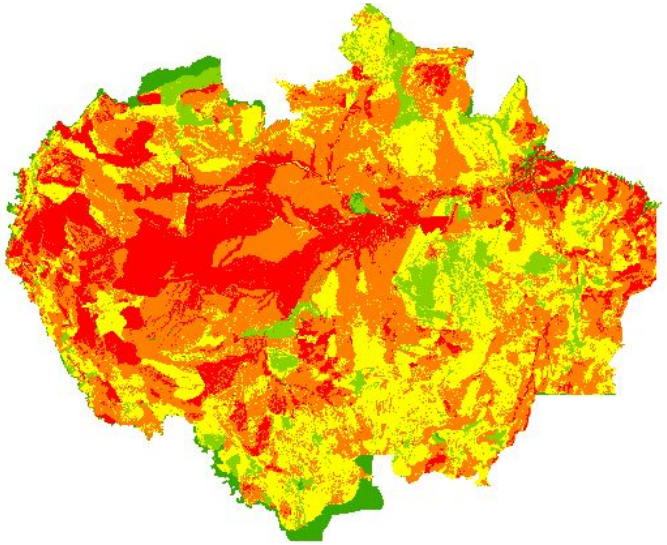
MONITORING NETWORK HYDROMETEOROLOGICAL

SITUATION ROOM FOR EXTREME EVENTS
(WATER RESOURCES)

Atlas of Hydroclimatic Vulnerability (ACTO, 2021)

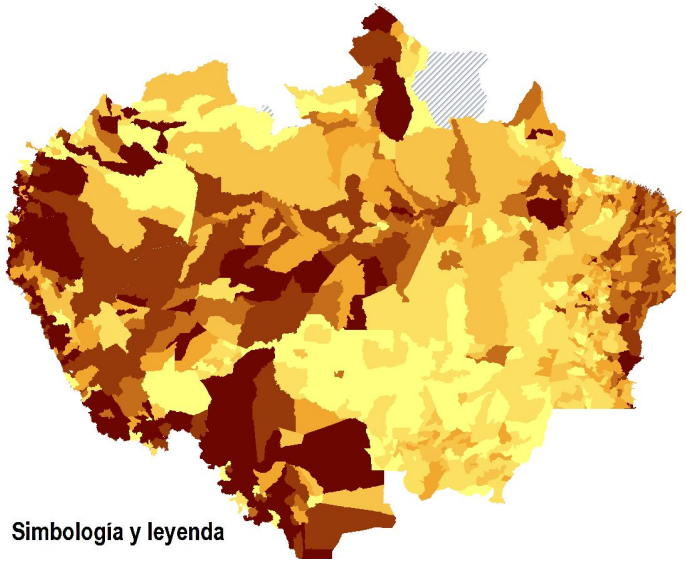
NIVELES DE VULNERABILIDAD Y SENSIBILIDAD

Color	Nivel	Valor
	Muy alta	5
	Alta	4
	Media	3
	Baja	2
	Muy Baja	1

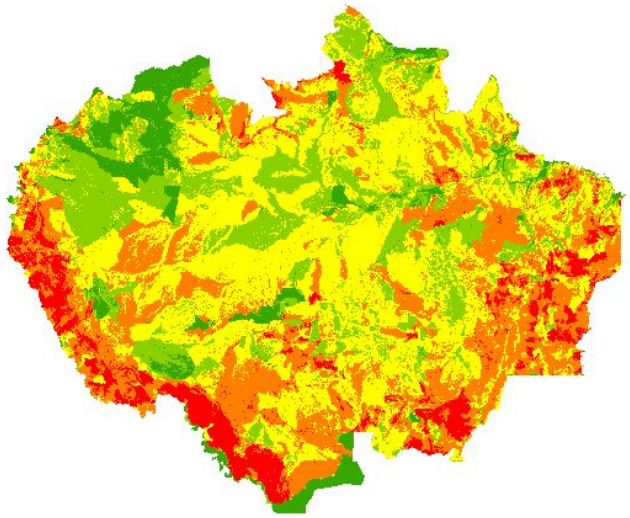


Flood Vulnerability

•The occurrence of disasters reaches 50% in the Andean Amazon and even increases to 51% in the Brazilian Amazon. Affecting productive systems and livelihoods at different scales and different geographical areas (mainly floodplains and headwaters).



Poverty



Drought Vulnerability

•19% of disasters in the Region are associated with drought, increasing this value to 46% in the Brazilian Amazon.
The greatest impact of droughts in the Region is in the livestock sector with 58% and in crops and forests with 6%.
The impact of droughts on the population is 36% of the total damage.

A temperature increase of 3 to 4 ºC is expected by the 21st century (2080-2100)

NEXUS FOCUS IN THE AMAZON BASIN

ACTO Amazon Cooperation Treaty Organization

AmazonBasin SAP IMPLEMENTATION gef

UN environment programme

gef

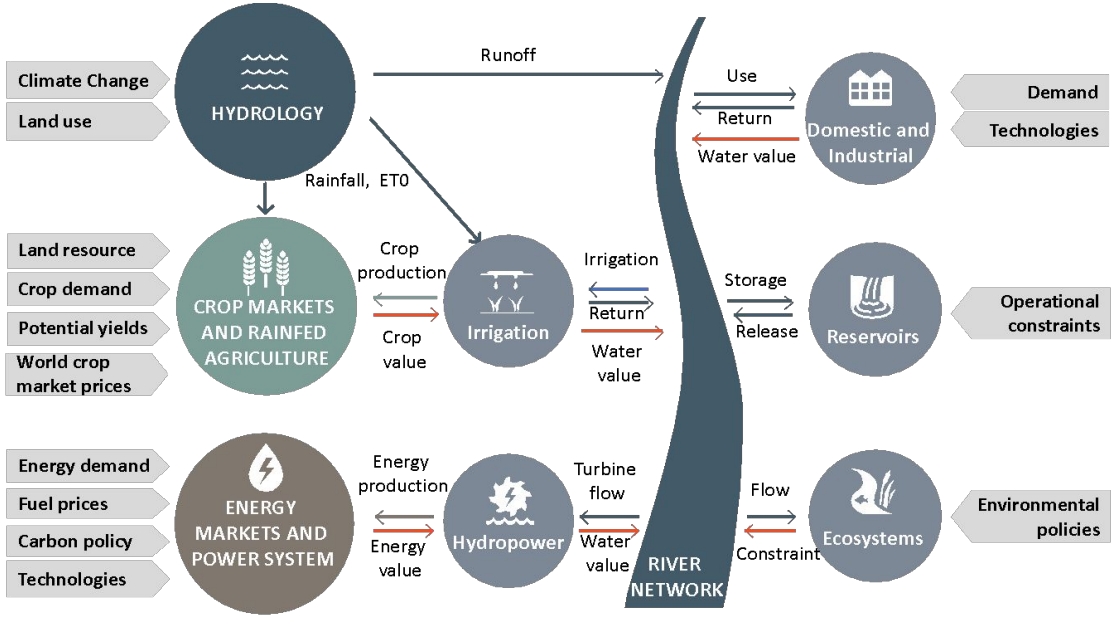
ACTO Amazon Cooperation Treaty Organization

IDB Inter-American Development Bank

Inter-Ministerial and Expert Dialogue Roundtables on the Water-Food-Energy-Ecosystem Nexus to Increase Climate Resilience and Better Achieve SDG 9 on Resilient Infrastructure and Sustainable Energy

Risk analysis, environmental impact assessment and best practices to minimise the impact of infrastructure on water resources and the environment.

Development of a hydrological platform and simulation model of the water-energy food nexus for the Amazon Basin

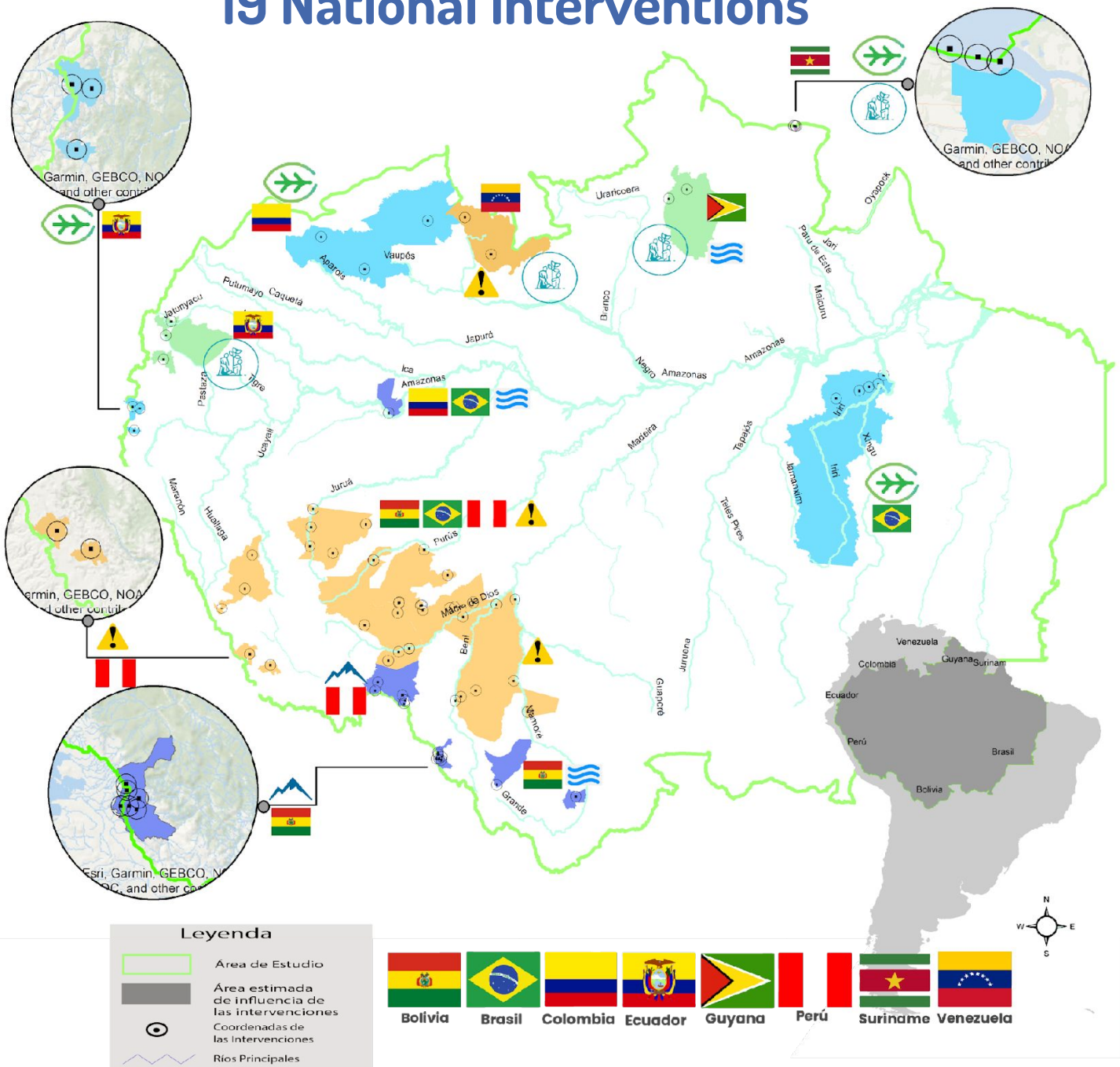


With the support of

The Nature Conservancy

COWI

19 National interventions



Leyenda

- Área de Estudio
- Área estimada de influencia de las intervenciones
- Coordenadas de las Intervenciones
- Ríos Principales

Bolivia Brasil Colombia Ecuador Guyana Perú Suriname Venezuela

OTCA
Organización del Tratado de Cooperación Amazónica

Cuenca Amazónica
IMPLEMENTACIÓN DEL PAE

ONU programa para el medio ambiente

gef

Sistemas de Alerta Temprana para inundaciones

Soluciones basadas en la naturaleza

Mecanismos financieros innovadores

Seguridad hídrica de la población, mediante la protección de las fuentes de agua subterránea.

Alternativas para el suministro de agua en los centros urbanos debido al retroceso de glaciares.

Sistemas de Monitoreo de Ecosistemas acuáticos y especies vulnerables en un contexto de cambio climático

AMAZONIAN NETWORK OF WATER AUTHORITIES

Permanent mechanism for coordination, cooperation and exchange at IWRM

Belém, August 8, 2023

Brasilia, April 17, 2024

Gracias,
Dank U,
Thank you,
Obrigada