# Scaling up Ecosystem-based adaptation in rural Latin America (EbA LAC)

## Success Factors & Impacts

MINISTERIO DE AMBIENTE Y ENERGÍA

SISTEMA NACIONAL DE ÁREAS DE CONSERVACIÓN

EL NUEVO ECUADOR IMPULSA
Ministerio de Ambiente y Energía

GOBIERNO DE LA REPÚBLICA GUATEMALA
Ministerio de Ambiente y Recursos Naturales

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

UICN

CATIE
Solutions for Inclusive Green Development
Soluciones para el Desarrollo Verde Inclusivo

On behalf of:
Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety
of the Federal Republic of Germany

IKI INTERNATIONAL CLIMATE INITIATIVE

# What is EbA?

**Ecosystem-based Adaption:**

- helps people to adapt to the adverse effects of climate change
- uses biodiversity and ecosystem services
- is part of an overall adaptation strategy

Ecosystem-based options

EbA hybrid options

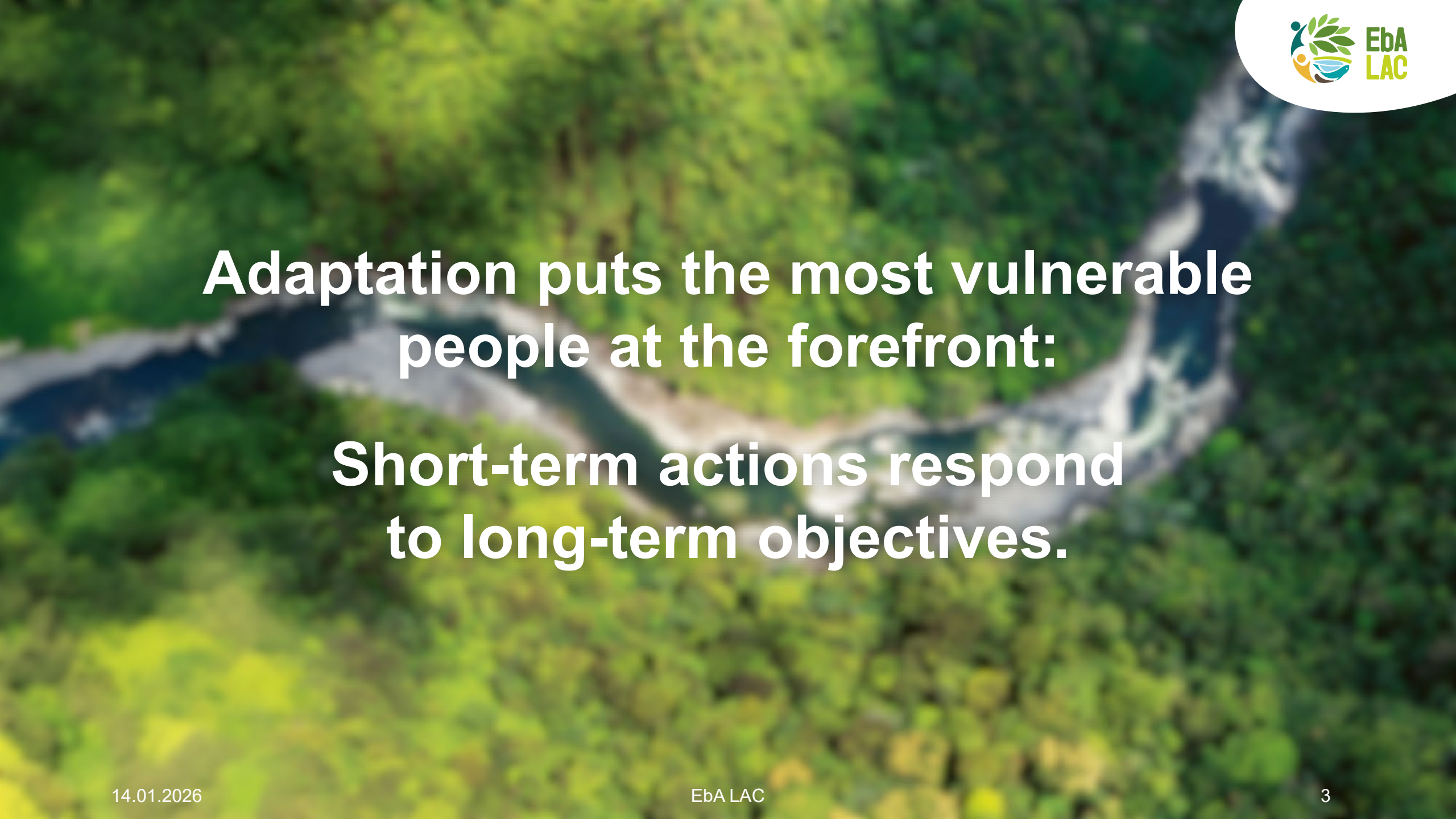
Infrastructure -based options

Political and social options

ADAPTATION STRATEGY

## 5 quality criteria

1. Reduces social and environmental vulnerabilities
2. Generates societal benefits in the context of climate change adaptation
3. Restores, maintains or improves ecosystem health
4. Is supported by policies at multiple levels
5. Supports equitable governance and enhances capacities



**Adaptation puts the most vulnerable people at the forefront:**

**Short-term actions respond to long-term objectives.**

# Conserving nature for climate resilience: Delivering EbA at scale

**Scaling-Up Ecosystem-based Adaptation (EbA):**

- promotes cost-effective adaptation strategies that contribute to biodiversity conservation, climate mitigation, and sustainable development.

**Urgent need:**

- urgent need to accelerate and scale **up** actions, because implementation is not advancing at the necessary speed and scale.

# Conserving nature for climate resilience: Delivering EbA at scale

**Climate finance needs in developing countries:**

- Greater than current flows (10-18 times)
- Inaction exacerbates climate risks, losses and damages
- Enhanced financial support to implement EbA achieves climate resilience and biodiversity conservation.

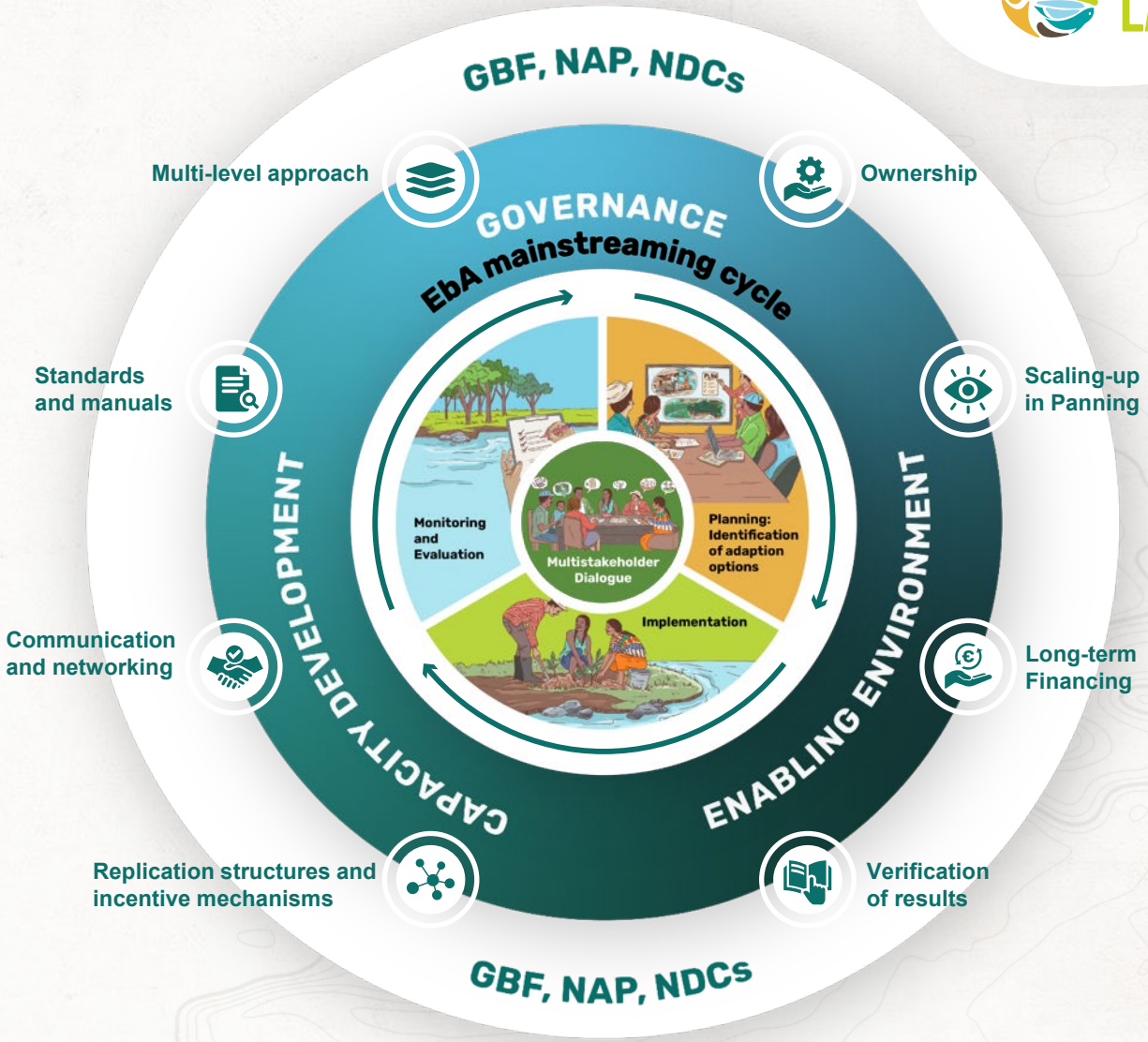
Ma. Cristina Par Tuluxan, Quiché, Guatemala, rescues biodiversity with ancestral knowledge and sustainable innovations.

# Success factors for scaling-up EbA

**Scaling-up EbA at vertical, horizontal and regional level requires harmonized approaches, methods, and guidelines:**

- Adaptative Governance
- Capacity Development
- Enabling Environment

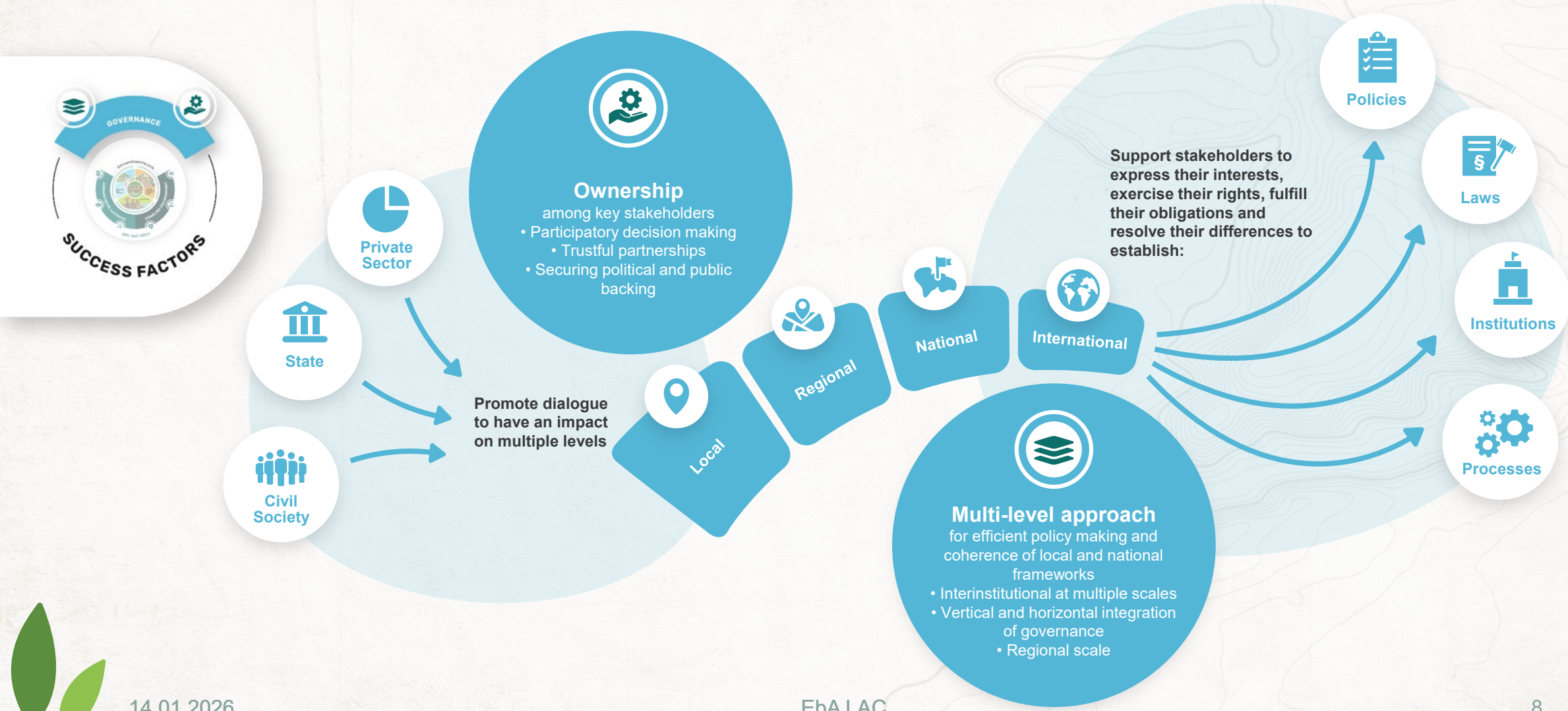
**Eight success factors** are key for bringing EbA to scale and generating **broad-based and structure building impacts**.




Key factors for Scaling-up EbA to achieve the Paris Agreement (PA), the National Determined Contributions (NDCs) and the National Adaptation Plans (NAP), as well as the Kunming Montreal Global Biodiversity Framework

# Success factors for scaling-up EbA

# How to strengthen governance to scale up EbA?



# Capacity Development to scale-up EbA


**Replication Structures and incentive mechanisms**

**Training of trainers (ToT):**
- Extension services, farmer field schools
- Government officials
- Finance institution
- Leaders (women, water user, community)

**EbA for ToT:**
- Mainstreaming EbA
- Gender responsive EbA
- Traditional knowledge
- Climate finance & financial inclusion
- Soft skills

Organisations

Networks & cooperation

Individuals

Society

**Communication & Networking**
between institutions and organisation

Peer-to peer learning networks for exchanging best practices & new knowledge

**Standards & Manuals**
- Guidelines
- Process steps
- Tools

EbA LAC strengthens capacities of multipliers
to provide in the long-term training and support to key stakeholders in scaling-up EbA.

# Mainstreaming EbA cycle: Planning EbA



**Incorporate Scaling-Up into Planning**

**Multi Stakeholder Dialogue**


**Apply a climate lens**
- Assess environmental, socio-economic and governance system
- Consider spatial and temporal dynamics


**Evaluate vulnerabilities and climate risks**
- Analyse climatic and non-climatic drivers
- Explore all dimensions of vulnerability (economic, social, ecological)
- Consider of available climate data (past, present, future/ scientific, local, traditional)


**Identify adaptation options**
- In policy, engineering, capacity development, research


**Prioritize and select adaptation options**
- Cost-benefit analyses, synergies and tradeoffs
- Impact analyses
- Define concrete actions
- Explore and assure financial resources
- Adaptive management

# How to close the finance gap to accelerate EbA implementation?



**Long-term financing**
to enhance upscaling of EbA
- Increase financial flows from the public and private sector
- Facilitate access to sustainable and inclusive finance

**Improve enabling environment of insurance and financial sector**

1. Identify rural **financial** needs for EbA
2. Improve allocation of **public spending** for EbA
3. Assist finance institutions with **climate risk tools**

**Matchmaking**

Assist **rural entrepreneurs, farmer associations, municipalities** in:
1. Developing sustainable business plans and bankable projects
2. Facilitate access to finance and markets

**Support second-tier banks, public & non governmental funds**

1. Identify public, private, and international finance sources

2. Improve or design inclusive sustainable green finance instruments

- Biodiversity-friendly
- Climate change
- Water Efficiency
- Gender

| | | | |
|---|---|---|---|
| **Funds** | **Grant** | **Compensation for Ecosystem Services** | **Debt** |
| **Fees, taxes** | **Insurance** | **Loan** | **Seed capital** |

**Operators**
1. Banks
2. Community Savings Banks
3. Cooperative
4. Insurance Companies

# Measuring effectiveness & strengthening Monitoring, Evaluation and Learning



**Verification of results**

Bringing EbA to scale includes measuring the effectiveness and tracking the contributions of EbA action to national monitoring systems, including:

- Design of impact indicators
- Joined monitoring, evaluation and learning to inform decision

**EbA measures**

- Agroforestry
- Landscape restauration
- Agrobiodiversity
- Conservation areas
- Pollination/ Beekeeping
- Sustainable forest management
- Silvopastoril systems
- Fire management
- Soil conservation
- Ecosystem services
- Sustainable bamboo
- Water security

Decision making on plan and policies

Report to national and international monitoring systems

Impact indicators

# Where does EbA LAC work?


## GUATEMALA

**Department** of Chimaltenango, Quiché, Baja Verapaz

**Municipalities:** Chimaltenango, San José Poaquil, San Andrés Iztapa, San Martín Jilotepeque, Canillá, San Bartolomé Jocotenango, San Andrés Sajcabajá, Santa Cruz de Quiché, Rabinal, San Miguel Chicaj, Salamá

**Surface:** 13.500 km$^2$

**Population:** ~ 2.053.000

## COSTA RICA

**Provinces** of Alajuela, Heredia, Limón

**Area of Conservation:** Huetar Norte and Tortuguero

**Biological Corridor:** Paso de las Nubes, San Juan La Selva

**Where:** Puerto Viejo de Sarapiquí, Pococí, Ciudad Quesada

**Surface:** 7.800 km$^2$

**Population:** ~ 418.000

## ECUADOR

**Province of Manabi**

**Where:** Parishes of San Plácido, Chirijos, Quiroga, Santa Rita, Cascol, Balsa Tumbada, Membrilial, Honorato Vásquez

**Surface:** 5.435 Km$^2$

**Population:** ~ 504.550

COSTA RICA


Biological Corridor:
San Juan La Selva

**Climate hazards in biological corridors:**

- Extreme weather events
- Water scarcity and droughts
- Heat waves
- Increased flooding

**Challenges:**

- Land/use change
- Loss of livelihoods
- Water insecurity due to high agricultural water supply.

| Area of ecosystems improved or protected | Landusers implement EbA | People supported to better adapt to climate change | Public & private capital catalysed | Plans and policies | Directly supported through networking and training |
|---|---|---|---|---|---|
| 5,053 ha | 40% ♀ | >1,740 | >12.625,100 € | 3 | 457 ♀ |

COSTA RICA


In Costa Rica, Biological Corridors are a key conservation strategy to ensure ecological connectivity . Costa Rica has 51 biological corridors, representing about 33% of the national territory, which generate social, economic and environmental benefits.
EbA Lac supports the declaration of the new Biological Corridor La Suerte.

**Conservation Area Tortuguero**

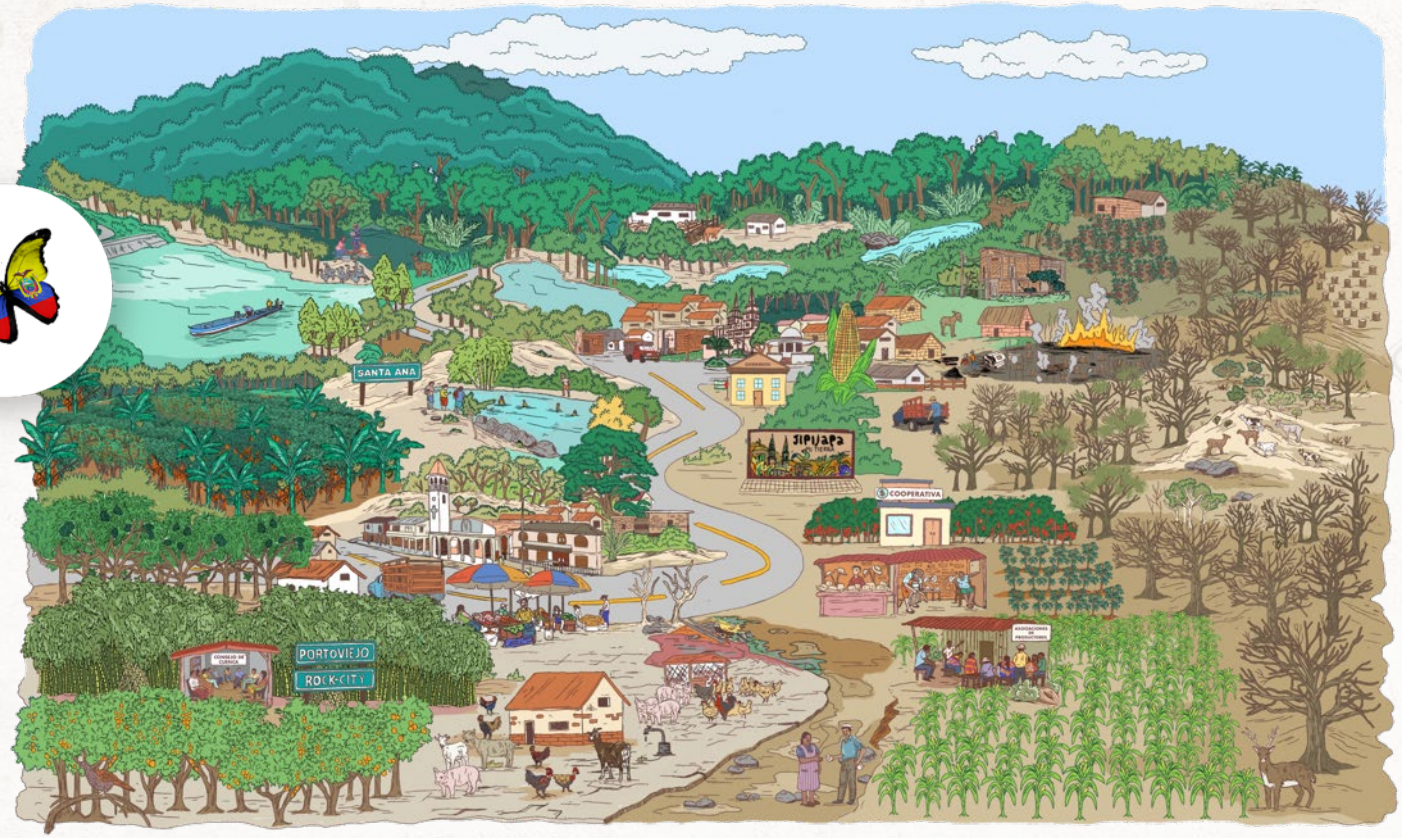
**New Biological Corridor**

**FuTurismo Climate risk platform for tourism sector**

**65 rural resilient start-ups with seed funding**

**3 new green credit lines**

ECUADOR




Río Portoviejo Watershed

**Climate hazards:**
- Recurring droughts and flooding cycles
- Torrential rains
- Landslides

**Challenges:**
- Environmental degradation
- Degradation of wetlands
- Deforestation
- Land use change
- Loss of livelihoods.

**Area of ecosystems improved or protected**
6,099 ha

**Landusers implement EbA**
40% ♀

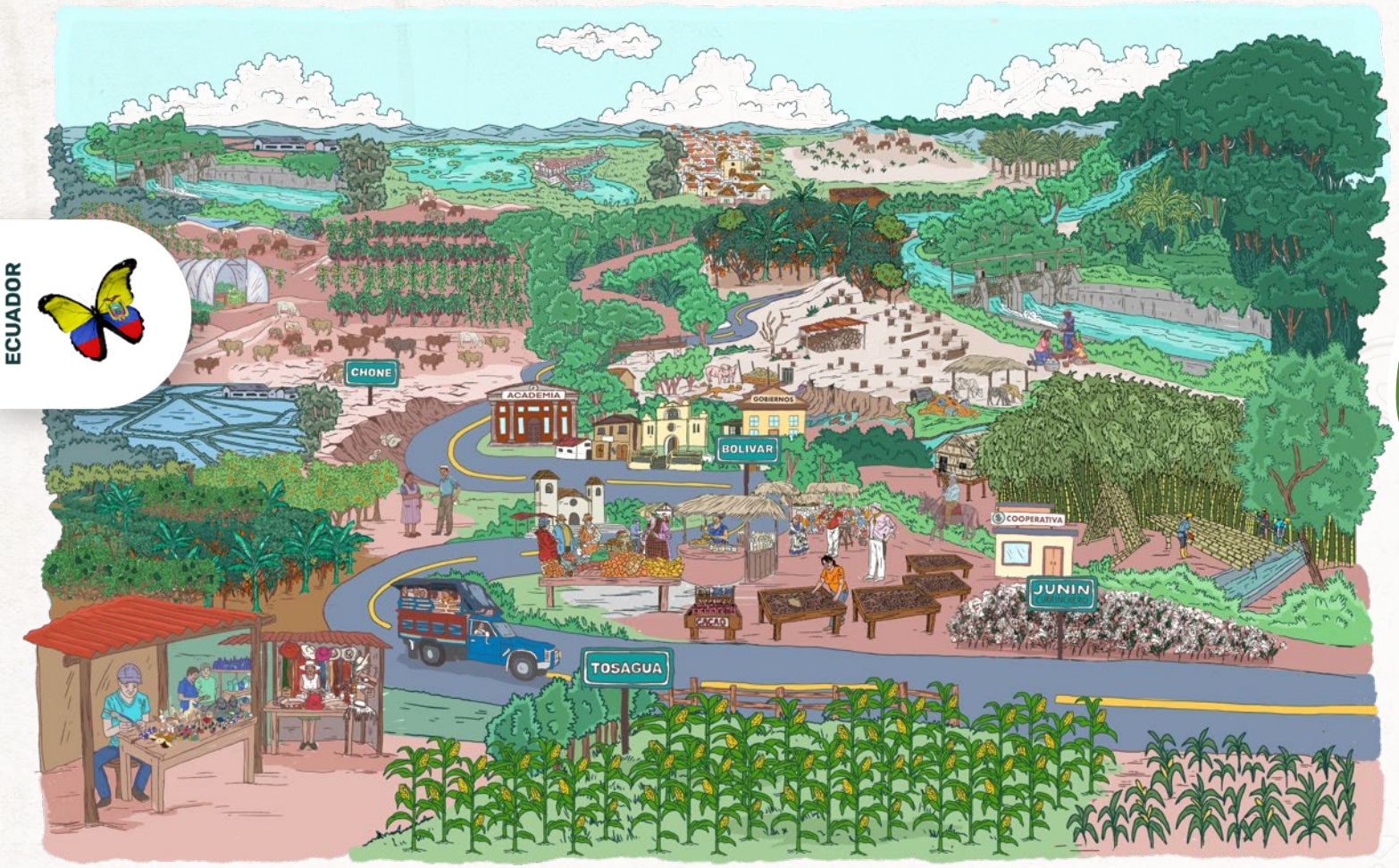
**People supported to better adapt to climate change**
>6,520

**Public & private capital catalysed**
> 2,877,980 €

**Plans and policies**
3

**Directly supported through networking and training**
1,278 ♀

ECUADOR




Northern Manabí landscape

- 160 families from various communities in Manabí have improved their economic management and well-being by enhancing their saving habits and investment in their family farms.
- > 650 people benefit from eight community savings groups to address climate change emergencies in the community.
- 3 community tree nurseries, improve production and food security for families.

**9 Development and Territorial plans with gender responsive EbA**

**National Climate Insurance Roadmap**

**2 Mio US $ green credit**

**8 community saving groups for rural women**

GUATEMALA


Chimaltenango intervention area

**Climate hazards in intervention areas:**

- Increased temperatures
- Altered rainfall patterns
- More frequent extreme weather events
- Prolonged droughts

**Challenges:**

- High socioeconomic vulnerability
- High dependence of livelihoods on natural resources, affected by deforestation, soil degradation and overexploitation of water resources.
- Prolonged drought reduce agricultural production, especially of staple crops like maize and beans, which are essential to the local diet.

| Area of ecosystems improved or protected | Landusers implement EbA | People supported to better adapt to climate change | Public & private capital catalysed | Plans and policies | Directly supported through networking and training |
|---|---|---|---|---|---|
| 4,273 ha | 78% ♀ | > 13,800 | | 1 | 467 ♀ |

GUATEMALA


Quiché and Baja Verapaz landscape

**Traditional practices of Mayan K'iche people**

- Women implement sustainable agricultural practices, market the organic products they grow in nearby markets, and have access to food and medicinal plants all year round.
- Resilience and production levels of organic crops have improved through the combination of sustainable agricultural techniques with ancestral knowledge.
- Crop diversification and marketing initiatives have improved local economic development.

**EbA mainstreamed in System of Urban and Rural Development Councils**

**Indigenous authorities strengthened in multi-stakeholder engagement**

**Rural Development Learning Centers (CADERES) fostered leadership of rural and/ or Indigenous women**

**Tools for municipalities on climate change adaptation investments**

# Gender responsive EbA implementation considering traditional knowledge

EbA LAC aims to accelerate gender equality through addressing the needs and challenges of women and vulnerable groups (indigenous people and youth) as well as strengthening their roles in sustainable land use management practices through designing EbA measures in a gender responsive way.

**Community gardens**

Ensuring food security and traditional knowledge
Improved household income, prevents malnutrition

**Livestock**

Access to training & markets
Matching forages to women's livestock assets (goats)
Promoting production of organic fertilizers and biopesticides

**Beekeeping**

Generates income
Fits in their daily routine, a high market demand
Supports pollination

**Reforestation**

Increased water security
Material for craft
Generates income

**Water Guardians**

Source water protection
Increase water security

# Women‘s Leadership in EbA

The impact of climate change and biodiversity loss affects, above all, women because of their responsibilities for subsistence agriculture, food security, and family care.

**Empowerment Through leadership**

- Analysis on gendered roles in ecosystem services to address inequalities.
- Facilitate participation in decision-making on climate action.

**Gender transformative Biological Corridor’s (OECM) Management plan**

- Representation in environment-related decision-making
- Design jointly gender responsive actions agriculture, livestock, and ecotourism.
- Development of gender indicators

**Women’s participation in Environmental Commission**

Foster women’s participation in planning processes to include actions for conservation, food security, traditional knowledge , medicinal plants and economic autonomy.

# EbA LAC and the international Agendas

EbA LAC supports Ministry of Environment and Energy (MINAE) in Costa Rica, the Ministry of the Environment, Water and Ecological Transition of Ecuador (MAATE), and the Ministry of Environment and Natural Resources (MARN) in Guatemala in a climate-resilient and nature-positive pathway.

Scaling up EbA contributes to the achievements of the Paris Agreement, the Kunming Montreal Global Biodiversity Framework and the Sustainable Development Goals

**DIRECT**


**INDIRECT**


Kunming - Montreal
GLOBAL BIODIVERSITY FRAMEWORK

# IMPRINT

Published by:
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Registered Offices:
Bonn y Eschborn, Alemania.

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn
T +49 61 96 79-0
E info@giz.de
I www.giz.de/en

The project Scaling-up Ecosystem based Adaptation (EbA) Measures in rural Latin America program is implemented by the Deutsche Gesellschaft für internationale Zusammenarbeit, IUCN (International Union for Conservation of Nature) and CATIE (The Tropical Agricultural Research and Higher Education Center).

www.ebalac.com

The project is part of the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) supports this initiative on the basis of a decision taken by the German Bundestag.

EbA LAC Programme Director::
Dr. Astrid Michels

Edition:
Dr. Astrid Michels, Daniel Ortuño, Nicolas Morales and Diana Ramírez

Design:
Creative republic, Thomas Maxeiner Visual Communications,
Frankfurt /Germany

Maps:
Jorge Masis

On behalf of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) through its International ClimateInitiative (IKI)

San José, Costa Rica, may 2025