



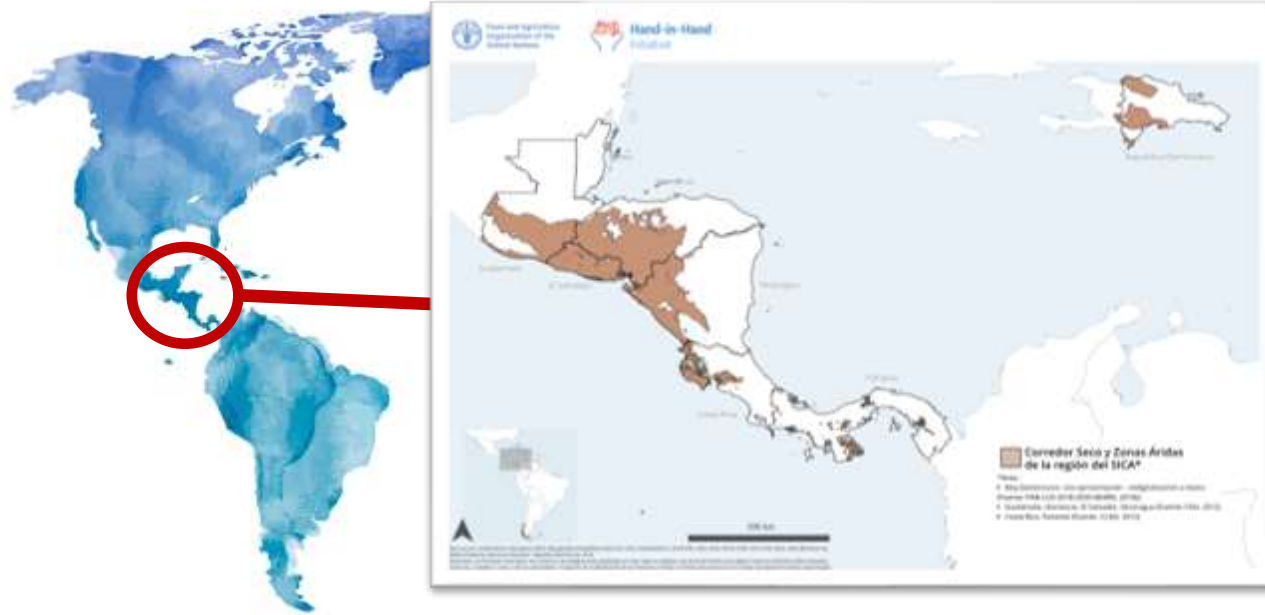
Dry Corridor and Arid Zones of the SICA region: building resilience

Dry Corridor and Arid Zones



Characteristics

- Geographical area from Mexico (Chiapas) to areas of Costa Rica and Panama, plus arid zones of the Dominican Republic
- Approximately 21 million people in rural municipalities
- More than 20% of employees are engaged in agriculture and basic grains production



Vulnerability to climate risks

- Vulnerability to extreme weather events, long periods of drought followed by heavy rainfall
- Last 5 years: 2 years of drought, 3 hurricanes category 4 and 5, 3 tropical storms
- Altered rainfall patterns in recent decades
- Present conditions of El Niño phenomenon for 2023/2024



Migration

- More than 5 million emigrants from the SICA region reside in the USA (8% of the population)
- Emigration of young people, 30% between 25-30 years
- Expelling municipalities tend to be poorer, more rural and more agricultural

Governance and intersectoriality of SICA

LVII Summit of Heads of State and Government (June 2023): backing and expansion from 4 to 8 countries



Excerpt from Declaratory

III – "The importance of the Hand in Hand Initiative: Building Resilience in the Dry Corridor of the SICA Region, we encourage to promote the regional approach in it, with the participation of all SICA Member States."

Intersectoral Ministerial Meeting Environment – Agriculture

SICA (July, 2023):

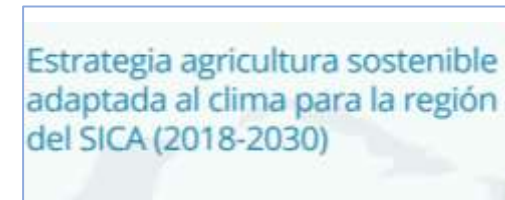
'New investment note with emphasis in agricultural innovation and transfer''



Construcción de Resiliencia en la región SICA bajo un enfoque sinérgico entre Mitigación y Adaptación enfocándose en el Sector Agricultura, Silvicultura y otros usos de la tierra (AFOLU)

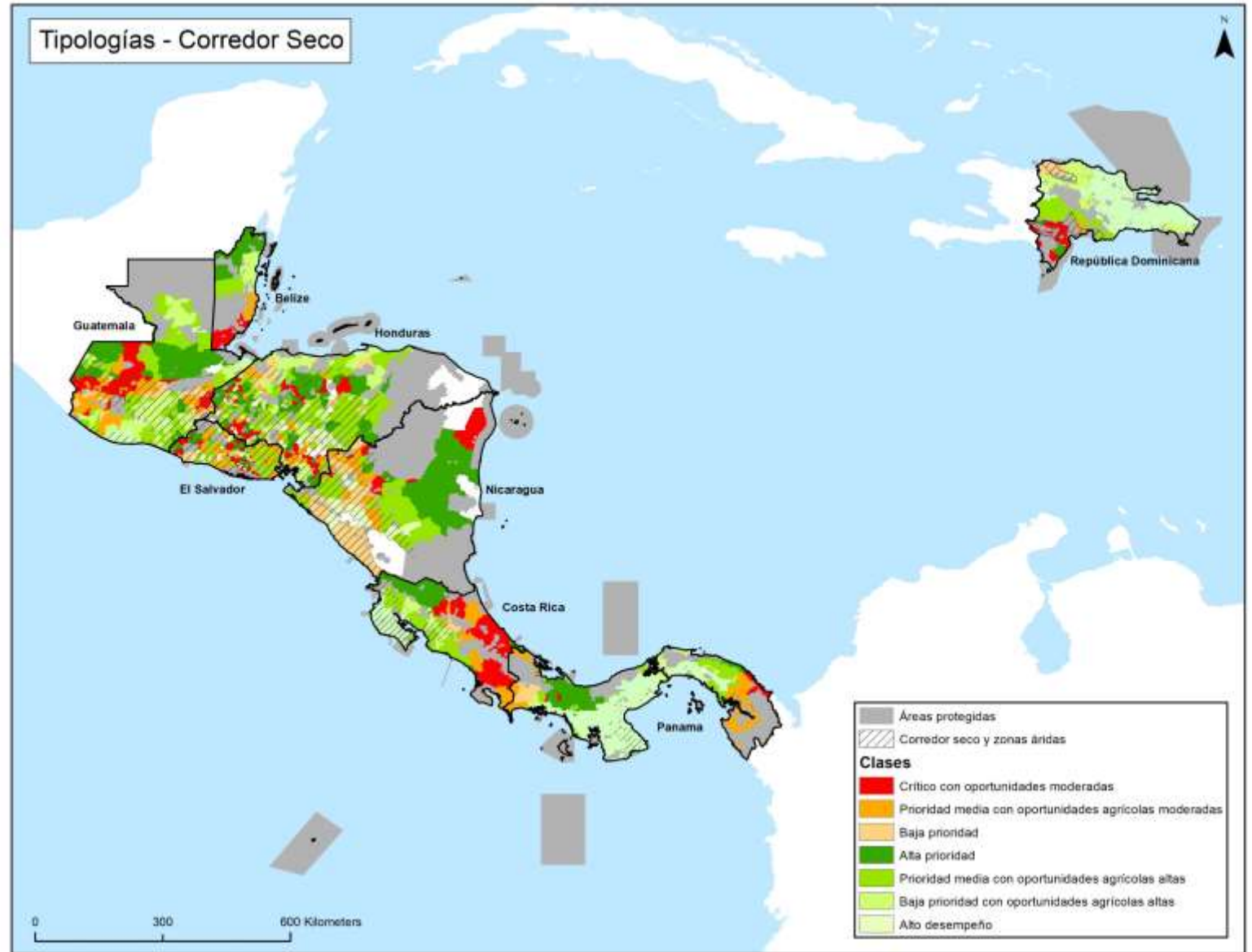
Value added of SICA

- Regional integration and coordination
- Regional policy, strategic and regulatory framework
- Generation of regional sustainable public goods
- Promotion of intraregional trade
- Promotion of South-South and Triangular cooperation
- Data analysis to inform decision making



Hand in hand: territories of opportunities

- **Strategic natural assets**
- High undeveloped **agricultural potential**
- 44% of **young population**
- **Free trade agreements** within and with other countries.
- Favorable **trade balance**: 50% of total exports correspond to agri-food products
- Agriculture **accounts** for 7% of regional GDP and one fifth of employment.
- Potential of **remittances** for financial inclusion (13% of GDP on average)



Partners and strategic allies



United Nations



Secretariats of SICA



Technical partners



2. Investment climate



Need for prior investments to minimize risks of financial operations (infrastructure, scientific innovation).



Intensify investments in technological innovation in water and soil ("commons").



Expand and strengthen relations between IFI and donors.

Regional programmatic proposal and investments



Complementarity with countries' HiH investments



Guatemala



Honduras



El Salvador



Nicaragua



Dominican Republic

Description

- Inform future **decision-making** variability/CC scenarios **to avoid crop losses** (Embrapa support)
- Municipal **maps** by crop and planting date, 80% success
- Increase the supply of agricultural **financing** and **insurance based** on climate risk reduction

Scope and investment required

- Benefit for **272,000 producers**
- **Information as a public good**
- **Total investment: 34 million USD** (14 initial investment + 20 15-year operation).
- **Return on investment:** IRR 55% VPN 102 million USD

Advances

- **USD 1 M provided by the Brazilian Cooperation Agency (ABC)**
- For actions in Guatemala, Honduras and El Salvador, with regional scaling-up of **capacity building actions to 8 countries.**



Map with provinces of Panama with risk of losses greater than 20% for rice planting on September 1



Description

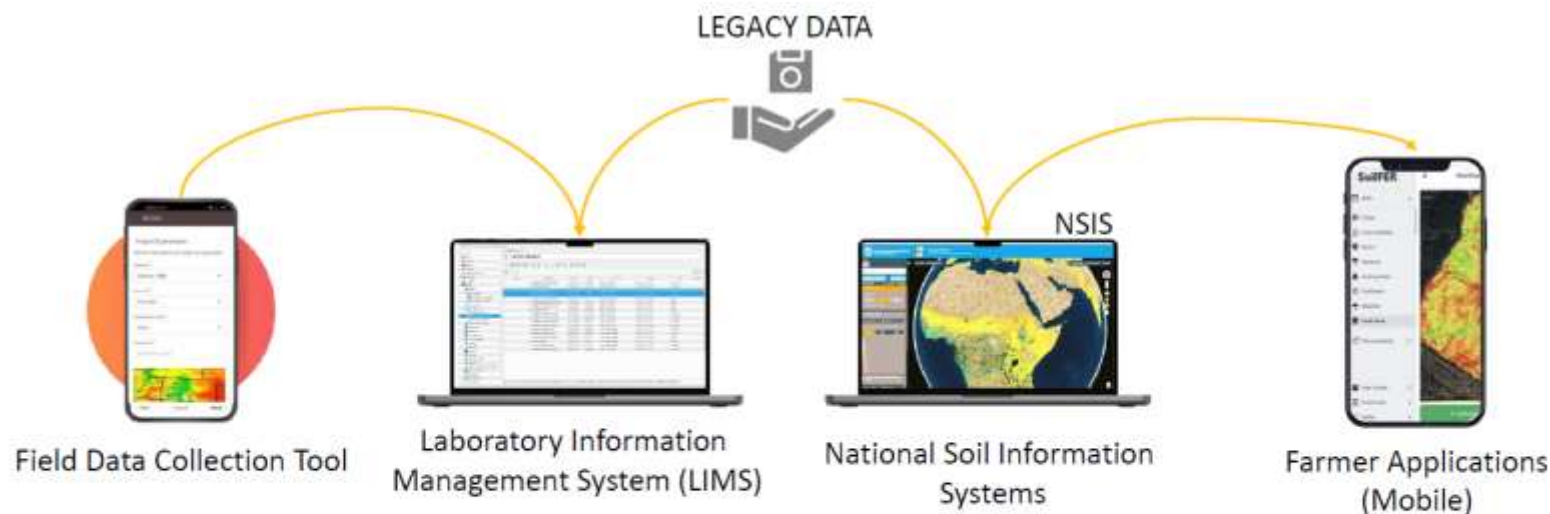
- Contribute to sustainable **agriculture and soil management** through nutrient management optimization
- **Digital soil maps** for decision-making
- **Strengthening capacities** in standardization of soil information

Scope and investment required

- Benefit for **511,000 agricultural producers**
- **Information as a public good** for public policies, private sector, producers, etc.
- **Total investment:** 59 million USD (53 initial investment + 6 15-year operation)
- **Return on investment:**
 IRR 24% NPV 69 million USD

Advances

- **USD 12 million provided** by the Government of the USA for the SOILFER project in Guatemala and Honduras – Started in May 2023
- **Capacity development component (regional)**
- **Previous work** done by Catholic Relief Services (CRS) in Honduras, El Salvador and Nicaragua



Description

- Limited level of investment in agricultural R&D
- Four components:
 - Database of grain and grass seed products available by agricultural research centers (ARI) in the region
 - Regional digital platform for dissemination of research centers' innovation products and services
 - Capacity building in research project development and impact assessment
 - Leveraging financing funds such as FONTAGRO and others for regional research and innovation projects

Scope and investment required

- Investments in strengthening of 8 agricultural R&D institutions
- Total investment: 11.2 million USD
- Return on investment (8 years):
IRR 38%
NPV 6.8 million USD

Starting point

- Database construction already in course with FAO's FMM project
- Technical group of innovation and transfer of the CAC in operation
- FONTAGRO has:
 - Digital platform for registration of projects and solutions, open source
 - Business model for financing R&D projects



CENTRO NACIONAL DE TECNOLOGÍA AGROPECUARIA Y FORESTAL



INTA
INSTITUTO NICARAGUENSE DE TECNOLOGÍA AGROPECUARIA



Description

- Strengthening the entrepreneurship of Micro, Small and Medium Enterprises (MSME) through **digital ecosystems for market access**
- **Development of investments in services and technology for information and communication**, applications and the development of digital skills to improve competitiveness and access to markets

Scope and investment required

- 288 municipalities in El Salvador, Guatemala, Honduras and Nicaragua in a first phase.
- Benefit for 22,400 agri-food producers.
- Establishment of 80 digital ecosystems and a focus on MSMEs per country
- Total investment: 26.2 million USD
- **Return on investment:**
IRR 24% NPV 5.2 million USD

Advances

- Execution of USD 200,000 from FAO's own funds for the initiative of Rural MSMEs and Family Farming Organizations in the Dry Corridor in the development of entrepreneurship, digitalization, trade and innovation.
- Approval of **150,000 USD** of FAO's own funds
- **International cooperation resources** for 1 million USD in pipeline



Investment Note 5/5: Comprehensive water supply systems for irrigation

Description

- Use of AGRI tool (CIAT/USAID/FAO) for identification of potential sites for surface water capture
- Infrastructures and investments for collection and efficient use in irrigation
- Strengthening governance and national/local capacities in water management at the micro-watershed level.

Scope and investment required

- Benefit for 12,000 families of the Dry Corridor (70,000 people)
- 100 systems for increasing water availability, 4,200 hectares
- Incremental net income of 592 USD per family per year
- Total investment: 180 million USD
- **Return on investment (20 years):** IRR 21% NPV 56 million USD

Advances

- There are **economic-financial and feasibility analyses** for Guatemala and Honduras carried out by FAO
- **In formulation project proposals** for management for 25 million USD (surface water management in 8 SICA countries)

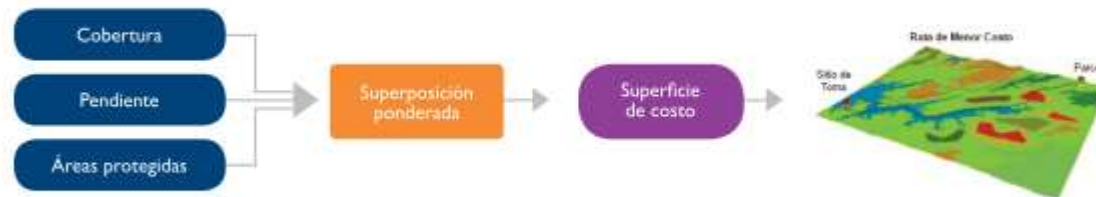


Figura 1-2. Diagrama general para determinar sitios de toma de agua. Fuente imagen (derecha): www.acolita.com



Mobilization of complementary investments



Co-financers



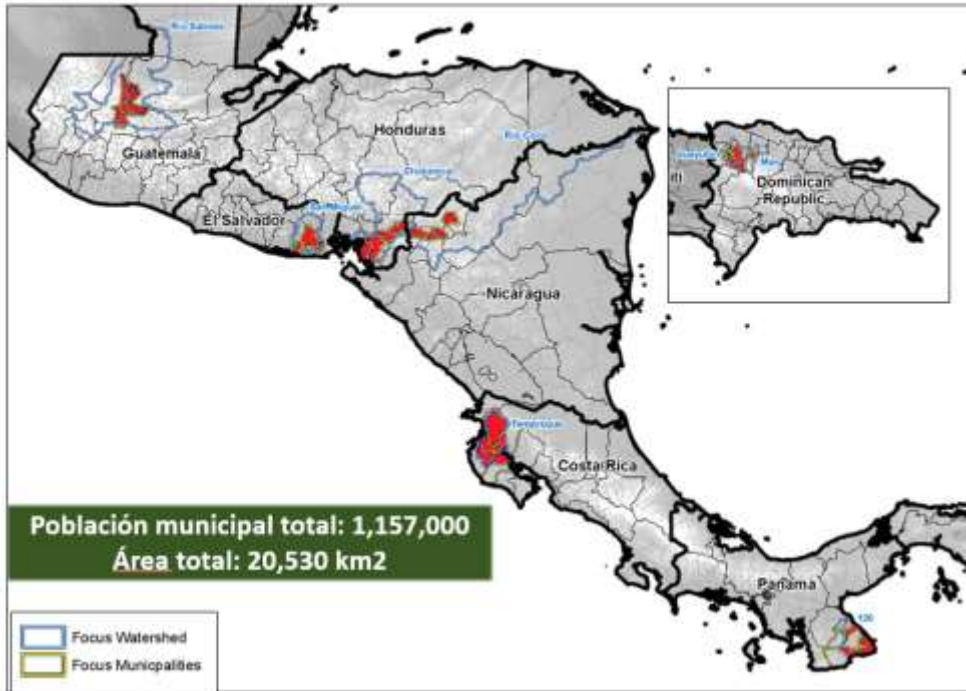
Countries' governments

CABEI – Regional programme for ecosystem-based adaptation in the dry corridor and the arid Zones of 7 countries
268 million USD



Countries' governments

Áreas piloto



Reclima – El Salvador
128 million USD



Increasing climate resilience measures in dry corridor agroecosystems



Relive – Guatemala
67 millones USD



Resilient livelihoods of vulnerable smallholder farmers in Maya and dry corridor landscapes



Synthesis of investments in the Dry Corridor and Arid Zones of SICA

311 million USD total investment	27% average IRR	Direct beneficiary households: 545,000 Indirect beneficiaries: 2,463,300
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Agricultural zoning of climate risk

Cost: 34 million USD

IRR: 55%

NPV: 102 million USD

Beneficiaries: 272,000 hh's

Digital mapping of soils

Cost: 59 million USD

IRR: 24%

NPV: 69 million USD

Beneficiaries: 511,000 hh's

Strengthening of ARI in R&D

Cost: 11.3 millones USD

IRR: 38%

NPV: 6.8 million USD

MSMEs and Digital Ecosystems

Cost: 26 million USD

IRR: 24%

NPV: 5.2 million USD

Beneficiaries: 22,400 hh's

Comprehensive water systems for irrigation

Cost: 180 million USD

IRR: 21%

NPV: 56 million USD

Beneficiaries: 12,000 hh's