Piloting Smart Farms in Mexico's Agri-tech Platform

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FIRA
FIDEICOMISOS INSTITUIDOS EN RELACION CON LA AGRICULTURA

Created in 1954 by SHCP and Banco de México. Currently made up of four trusts.

Mission

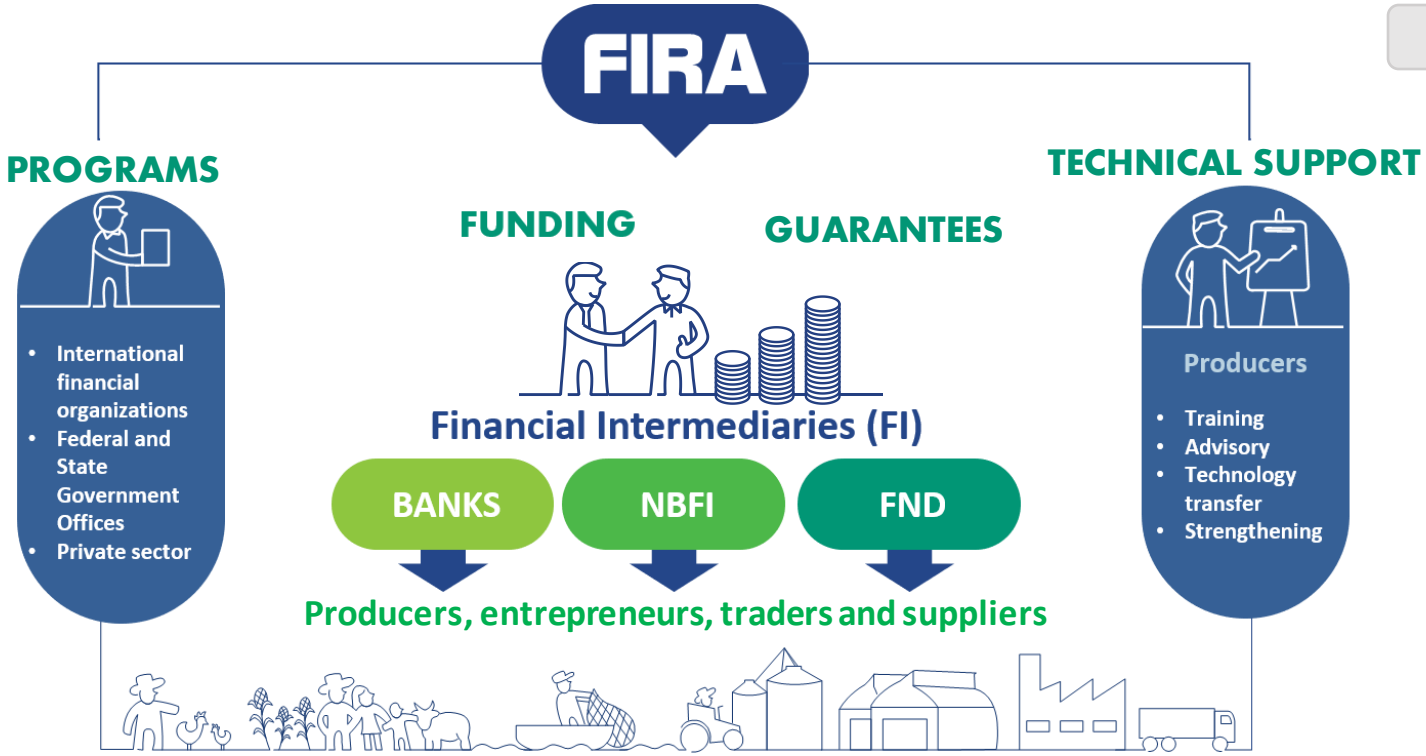
Promote until the consolidation of an inclusive, sustainable and productive agri-food and rural sector.

Vision

Achieve a country that shares the benefits of a successful agri-food sector with all its members.

For 67 years, FIRA has supported activities related to the agri-food sector as well as any other productive activity in Mexico's rural areas.

As a second-tier Development Bank, FIRA business model is supported by a Financial Intermediaries' network, as the channel for financing producers and companies.

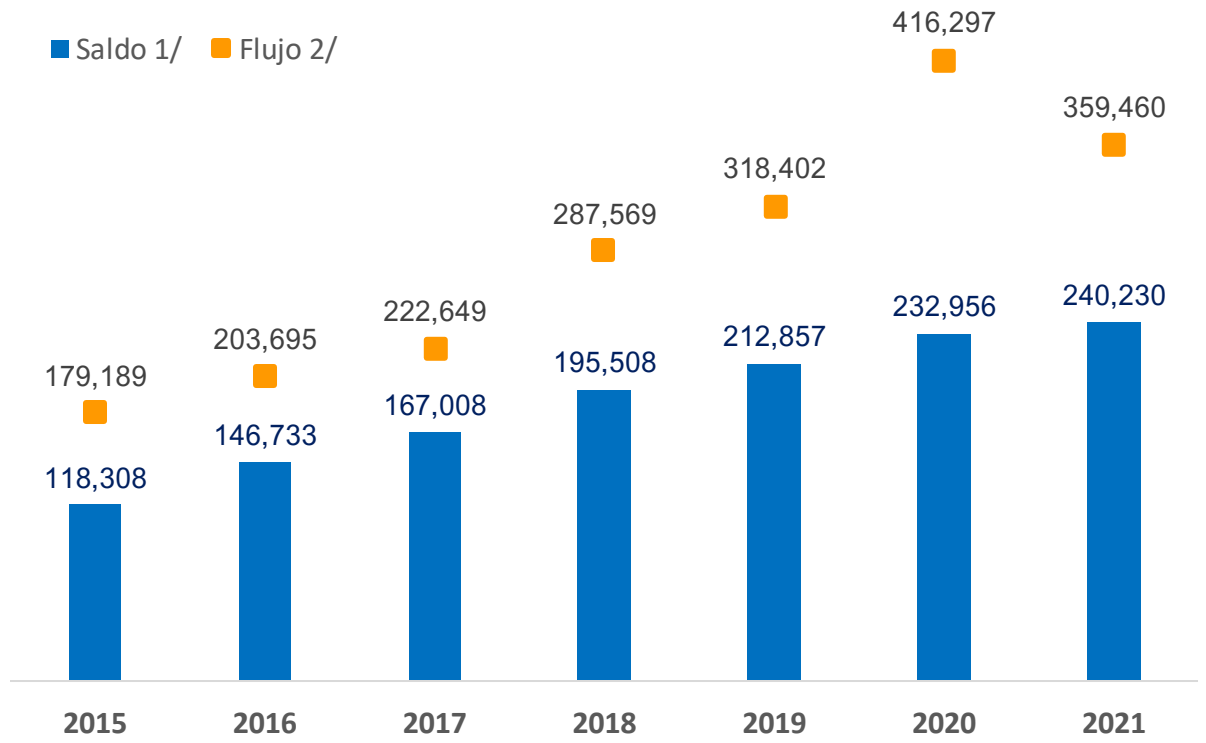


FIRA´s offices are located all over the country

FIRA's growth has been constant. In 2021, the total balance of credit and guarantees was $240,230 million, 79% of this portfolio corresponds to agriculture and livestock related activities

Balance and total financing flow 2015 - 2021

million nominal pesos



Source: FIRA

1/ Portfolio balance includes funding balance, guarantee without funding and guarantees paid.

2/ Credit flow includes discount flow, guarantee without funding and administrations for treatment.

Operating result: December 2021

Portfolio balance in millions of pesos

55% Agriculture
$132,374 million

24% Livestock
$ 57,836 million

16% Rural Financing
$ 39,593 million

3% Fishing
$ 6,100 million

2% Forestry
$ 4,327 million

Comprehensive support for Mexico´s public policies

2,644,639
Total accredited

80%
Women

28%
New

5,300 million USD
Investment and equipment financing

FIRA's Technology Development Centers (CDT's) are business units that practice sustainable production systems, in addition to the new model of Technology Transfer "Producer to Producer Extensionism".

CDT La Noria — Centro de Desarrollo Tecnológico de FIRA
Livestock and extensión farming

CDT Villadiego — Centro de Desarrollo Tecnológico de FIRA
Sustainable grain production

CDT tantakin — Centro de Desarrollo Tecnológico de FIRA
Livestock and extensión farming

CDT Salvador Lira López — Centro de Desarrollo Tecnológico de FIRA
High value agriculture

CDT tezoyuca — Centro de Desarrollo Tecnológico de FIRA
Micropropagation

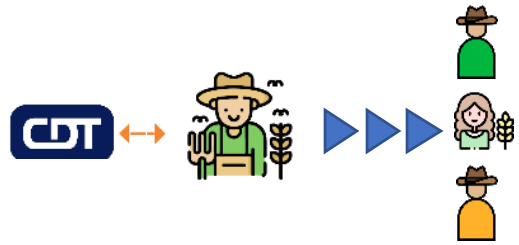
1 *Sustainable production systems*, whose technology is transferred to small and medium-sized companies in the agricultural sector, mainly within the CDT.

665 Hectares of experimental fields
13 agriculture value chains
3 Livestock species

Water efficiency
Energy efficiency
Input efficiency
Increased productivity

2 *Producer to Producer Extensionism*

1. Identify innovative producers (IPs) and traditional producers (TP)
2. Document the business model of both and the technology gap
3. Transfer knowledge from IP to TP
4. CDT support and monitoring
5. Evaluation of the model



FIRA
FIDEICOMISOS INSTITUIDOS EN RELACION CON LA AGRICULTURA

PROJECT DESCRIPTION AND COMPONENTS

PDO

Contribute to expanding access to finance and improve the economic and climate resilience of targeted beneficiaries

SCOPE

This Project will be demand-driven and operate at a national level. However, priority will be given to the southern, southeastern, and western regions of Mexico

US$ 200 million

IBRD LOAN

AGROINCLUYE PROJECT*

COMPONENT 1	COMPONENT 2	COMPONENT 3
ACCESS TO FINANCE FOR RURAL AGRO-INDUSTRIAL PRODUCTION (US $482 million)	AGRI-TECH PLATFORM (US$7 million)	MONITORING, EVALUATION AND PROJECT MANAGEMENT (US$5 million)
Through financial intermediaries, this component will support FIRA to expand its lending operations in rural areas to serve AEs.	This component will finance FIRA's development, testing, launching, and operation of an innovative and integrated Agri-Tech platform	This component will cover the incremental staff and operating costs required to oversee all operations under the Project.

BENEFICIARIES

1. **FIRA**
2. **Eligible Participating Financial Intermediaries (PFIs)** (bank and non-banking)
3. **Agroindustrial Enterprises (AEs)**
4. **Agricultural producers**

* Project is under negotiation

Financial structure of the Project*

Source of funding	Amount (US$ millions)	Linked component
International Bank for Reconstruction and Development (IBRD)	200	Component 1
FIRA Counterpart Funding	110	Component 1 and 2
Canada Clean Energy and Forest Climate Facility Trust Fund (CCEFCF)	17	Component 1
Korea Green Growth Trust Fund (KGGTF)	0.95	Component 2
Korea WB Partnership Facility (KWPF)	2.5	Component 2
Commercial Funding (from Participating Financial Intermediaries and Agroindustrial Enterprises	165	Component 1
Total	**495,45**	

* Project is under negotiation

ISSUES THAT WE EXPECTED TO ADDRESS WITH THE PROJECT

Issues/ Problematique	How FIRA is attending these issues	Agroincluye Project
Low **financial inclusion** in rural areas constrains productive investments	**FIRA´s "Parafinancieras Model",** an adaptation of contract farming to foster financial inclusión, economies of scale and reduction of transaction costs	C1: **Credit line** intermediated by FIRA to eligible PFIs (banking and non banking institutions) for on-lending to selected AEs (end borrowers)
Information asymmetries along the different links of the financial intervention chain (FIRA, Participating Financial Intermediaries (PFIs), Agroindustrial Enterprises (AEs) and farmers)	**Mexico's agri-tech and fintech ecosystems** provide significant opportunities for developing innovative digital solutions at scale	C2: **Agri-tech Platform** (center for information, knowledge, and access to financial services)
Low productivity due to technological gaps and high **vulnerability to climate change** and adverse weather events	FIRA provides **technical assistance** to AEs and producers through its training programs, technological development centers, and registered TA providers. FIRA´s Sustainable Investment Concepts	C1: Participating beneficiaries will benefit from **TA** incorporated in FIRA´s financing model (including promotion of **climate-smart technologies and practices**) C2: Content development on CSA

KGGTF GRANT ACTIVITIES AND TIMELINE

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l leaders in Agri-tech innovation, South Korean
ms globally, and field visits to financially
Korean farmers. The objective of this video series
ries that wish to make advancements by
agriculture sector.

y training course and study visit held in South
om the Mexico AGROINCLUYE Project, designed to
ot and implementation of smart farms.

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Thank you

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June 2023

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KOREA GREEN INNOVATION DAYS

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