Piloting Smart Farms in Mexico’s Agri-tech Platform

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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.

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.
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 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**

<table>
<thead>
<tr>
<th>Year</th>
<th>Saldo (1)</th>
<th>Flujo (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>118,308</td>
<td>179,189</td>
</tr>
<tr>
<td>2016</td>
<td>146,733</td>
<td>203,695</td>
</tr>
<tr>
<td>2017</td>
<td>167,008</td>
<td>222,649</td>
</tr>
<tr>
<td>2018</td>
<td>195,508</td>
<td>287,569</td>
</tr>
<tr>
<td>2019</td>
<td>212,857</td>
<td>318,402</td>
</tr>
<tr>
<td>2020</td>
<td>232,956</td>
<td>416,297</td>
</tr>
<tr>
<td>2021</td>
<td>240,230</td>
<td>359,460</td>
</tr>
</tbody>
</table>

**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
- **5,300 million USD** Investment and equipment financing

**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.
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".

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

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'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".
**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

**COMPONENT 1**
ACCESS TO FINANCE FOR RURAL AGRO-INDUSTRIAL PRODUCTION
(US $482 million)

Through financial intermediaries, this component will support FIRA to expand its lending operations in rural areas to serve AEs.

**COMPONENT 2**
AGRI-TECH PLATFORM
(US$7 million)

This component will finance FIRA’s development, testing, launching, and operation of an innovative and integrated Agri-Tech platform.

**COMPONENT 3**
MONITORING, EVALUATION AND PROJECT MANAGEMENT
(US$5 million)

This component will cover the incremental staff and operating costs required to oversee all operations under the Project.

**IBRD LOAN**
US $ 200 million

**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*

<table>
<thead>
<tr>
<th>Source of funding</th>
<th>Amount (US$ millions)</th>
<th>Linked component</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Bank for Reconstruction and Development (IBRD)</td>
<td>200</td>
<td>Component 1</td>
</tr>
<tr>
<td>FIRA Counterpart Funding</td>
<td>110</td>
<td>Component 1 and 2</td>
</tr>
<tr>
<td>Canada Clean Energy and Forest Climate Facility Trust Fund (CCEFCF)</td>
<td>17</td>
<td>Component 1</td>
</tr>
<tr>
<td>Korea Green Growth Trust Fund (KGGTF)</td>
<td>0.95</td>
<td>Component 2</td>
</tr>
<tr>
<td>Korea WB Partnership Facility (KWPF)</td>
<td>2.5</td>
<td>Component 2</td>
</tr>
<tr>
<td>Commercial Funding (from Participating Financial Intermediaries and Agroindustrial Enterprises)</td>
<td>165</td>
<td>Component 1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>495.45</strong></td>
<td></td>
</tr>
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</table>

* Project is under negotiation
<table>
<thead>
<tr>
<th>Issues/ Problematique</th>
<th>How FIRA is attending these issues</th>
<th>Agroincluye Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low financial inclusion in rural areas constrains productive investments</td>
<td>FIRA’s “Parafinancieras Model”, an adaptation of contract farming to foster financial inclusión, economies of scale and reduction of transaction costs</td>
<td>C1: Credit line intermediated by FIRA to eligible PFIs (banking and non-banking institutions) for on-lending to selected AEs (end borrowers)</td>
</tr>
<tr>
<td>Information asymmetries along the different links of the financial intervention chain (FIRA, Participating Financial Intermediaries (PFIs), Agroindustrial Enterprises (AEs) and farmers)</td>
<td>Mexico’s agri-tech and fintech ecosystems provide significant opportunities for developing innovative digital solutions at scale</td>
<td>C2: Agri-tech Platform (center for information, knowledge, and access to financial services)</td>
</tr>
</tbody>
</table>
| 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

June 2022

1. Study Tour completed
   
2. Smart-farm training course published

June 2023

3. Public agency advisory services completed

June 2024

Piloting Smart Farms in Mexico’s Agri-tech Platform

One-week training course to facilitate knowledge exchange on the concept of smart farming between FIRA and public agencies in Korea.

1. Study Tour completed
2. Smart-farm training course published
   
Roadmap to adapt the Korean smart-farm model to the Mexican specificities. Dispatch of Korean experts to train Mexican farmers and CDT researchers, and extension officers in selected FIRA CDTs. Dissemination events with producers/training partners.

3. Public agency advisory services completed

All leaders in Agri-tech innovation, South Korean farms globally, and field visits to financially support Korean farmers. The objective of this video series is to make advancements by agriculture sector.

El training course and study visit held in South from the Mexico AGROINCLUYE Project, designed to support and implementation of smart farms.
Thank you

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June 2023

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Agriculture & Food