Validation of a methodological model to incubate successful agribusinesses in marginalized areas from South Mexico

Validação de modelo metodológico para incubar agronegócios bem-sucedidos em áreas marginalizadas do Sul do México

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ABSTRACT
Given the situation of poverty and marginalization in which most of the communities in the rural areas of the Mexican South Southeast are found, a situation that affects 17 million people classified as in a situation of extreme poverty, agribusiness is an alternative under these conditions for it. An operational and practical methodology is required that allows a good identification and implementation of initiatives according to the situation and the environment. The objective of this work was to validate an operational methodological model called model for the competitiveness of small farmers in extreme poverty based on agribusiness. The validation project was developed in four pilot communities in the Mexican South Southeast considered to be highly marginalized and poor: San Andrés Tuxtla, Veracruz; Tahdziu, Yucatan; Ocotepec, Chiapas and San Jerónimo Taviche, Oaxaca. The applied model consists of four stages, diagnosis, incubation, development and maturity. The diagnosis considered in turn two sub-stages, one on the description of the environment and the actors and the second on the definition of the portfolio of opportunities. The incubation considered the sub-stages of prioritization through a qualification criteria and the business plan itself according to the conditions of the actors and the environment. The development stage is nothing more than the start-up and consolidation of the business with a view to continuous improvement. The results obtained were four agribusinesses in progress, one for each pilot community, with profitability indicators such as the Internal Rate of Return (IRR) of 35.0%, 100.0%, 41.0% and 45.9% for jam production in San Andrés Tuxtla Veracruz, Stevia production and marketing in Tahdziu Yucatán, Hass avocado production and marketing in San Pablo Huacanó Chiapas and tomato production and marketing in greenhouses in San Jerónimo Taviche Oaxaca, respectively. The operational methodological model to identify and develop agribusiness in poor and marginalized communities was successfully validated. It is concluded that it is possible to develop profitable and competitive agribusiness in conditions of extreme poverty and marginalization.

Keywords: agribusiness, business plan, poverty, marginalization, competitiveness.

RESUMO
Diante da situação de pobreza e marginalização em que se encontra a maior parte das comunidades das áreas rurais do Sudeste Mexicano, situação que atinge 17 milhões de pessoas classificadas como em situação de extrema pobreza, o agronegócio é uma alternativa nessas condições para tal. É necessária uma metodologia operacional e prática que permita uma boa identificação e implementação de iniciativas de acordo com a situação e o ambiente. O objetivo deste trabalho foi validar um modelo metodológico operacional chamado modelo para a competitividade dos pequenos agricultores em extrema pobreza baseado no agronegócio. O projeto de validação foi desenvolvido em quatro comunidades piloto no sudeste do México consideradas altamente marginalizadas e pobres: San Andrés Tuxtla, Veracruz; Tahdziu, Yucatan; Ocotepec, Chiapas e San Jerónimo Taviche, Oaxaca. O modelo aplicado consiste em quatro etapas: diagnóstico, incubação, desenvolvimento e maturidade. O diagnóstico considerou, por sua vez, duas subetapas, uma sobre a descrição do ambiente e os atores e a segunda sobre a definição do portfólio de oportunidades. A incubação considerou as subetapas da priorização por meio de critérios de qualificação e o próprio plano de negócios de acordo com as condições dos atores e do meio ambiente. A fase de desenvolvimento não é mais do que o arranque e a consolidação da atividade com vista a uma melhoria contínua. Os resultados obtidos foram quatro agronegócios em andamento, um para cada comunidade piloto, com indicadores de rentabilidade como a Taxa Interna de Retorno (IRR) de 35,0%,
100.0%, 41.0% e 45.9% para a produção de compota em San Andrés Tuxtla Veracruz, a produção e comercialização de Stevia em Tadhziu Yucatán, a produção e comercialização de abacate em San Pablo Huacanó Chiapas e a produção e comercialização de tomate em estufas em San Jerônimo Taviche Oaxaca, respectivamente. O modelo metodológico operacional para identificar e desenvolver o agronegócio em comunidades pobres e marginalizadas foi validado com sucesso. Conclui-se que é possível desenvolver o agronegócio rentável e competitivo em condições de extrema pobreza e marginalização.

**Palavras-chave:** agronegócio, plano de negócios, pobreza, marginalização, competitividade.

### 1 INTRODUCTION

According to CONEVAL (2020), 43.9% of the Mexican population was in a situation of poverty and 8.5% in a situation of extreme poverty. Extreme poverty is defined when a person has three or more deficiencies, out of six possible, within the Social Deprivation Index and, furthermore, is below the minimum well-being line. People in this situation have such a low income that, even if they dedicated it entirely to the purchase of food, they would not be able to acquire the necessary nutrients for a healthy life. Poverty is a characteristic of the majority of families living in rural Mexico since, according to the same source, in 2018 poverty in rural areas (localities with less than 2,500 inhabitants) affected 55.3% of its total population (about 17 million people). In the urban environment the percentage was lower (37.6%), corresponding to 35.5 million people (CONEVAL, 2019). This situation has been favored by a series of factors that when combined are reflected in a situation of marginalization, which in many cases is extreme. The poor organization for production from a business point of view, that is, with attention to market demand; The scarce production technology, the limited land surface and the low educational level of the producers are some of the great causes of rural poverty indicated by Rodríguez et al., (2016). In addition, a characteristic of poor peasant economies is the fragility of the link they have established with the market. In other words, marginalized small farmers are uncompetitive because they have greater difficulties to implement innovation processes, therefore, their productivity levels are low, a situation that leads them to prioritize self-consumption, generating few or no surpluses that they take to the market, for what their participation occurs in a situation of disadvantage in terms of quantity, quality and price, affecting their low and insufficient monetary income.
Rodríguez et al., (2016) and Rodríguez et al., (2019) point out the importance of strengthening the link to the market as the only way to increase the income of small rural producers in marginalized conditions. Achieving self-consumption but at the same time increasing the surplus destined for the market has become the greatest challenge for small producers. Agribusiness is an alternative. In fact, in Latin American economies, agribusiness is one of the main sources of wealth and development. They participate in the Gross Domestic Product with values above 30% (Silva and Cantou, 2006 cited by Scoponi et al., 2016). According to FOMAGRO (2006) cited by Camacho and Bobadilla (2020), agribusiness is understood as "Activity and set of processes that promote a more efficient insertion of agricultural producers in productive chains, and that allows them to generate jobs, add greater value to their products and appropriate a greater proportion of the price paid by final consumers. This concept may include activities related to the production or supply of goods and services for agricultural, livestock, forestry and aquaculture production, as well as those linked to the post-harvest phases, in addition to those agribusinesses that use renewable energy systems to the reduction of costs and/or for the conservation of the environment. Productive conversion processes in rural areas may also be included, as long as they respond to criteria that promote economies of scale and the organized provision of goods and services, as well as the introduction of advanced technologies, to transition from low-productivity activities to others with high economic performance and highly generating employment and rural income". Another definition is proposed by IICA (2010): "It is an integrated business system focused on the consumer, which includes aspects of primary production, processing, transformation and all storage, distribution and marketing activities, as well as services, public and private, which are necessary for companies in the sector to operate competitively. Contrary to the traditional vision, this vision of agribusiness considers agriculture as a system of value chains that focuses on satisfying consumer demands and preferences, through the incorporation of practices and procedures that include all activities within and outside the production unit; that is to say, it considers all the dimensions of agriculture and accepts that its products are not always the result of the simple production of food”.

A key element in the concept refers to the market, which is where the transaction between the producer and the buyer and/or consumer takes place, where the producer provides the good or service to the consumer in exchange for a sale price. But is it feasible to develop agribusiness in conditions of marginalization and extreme poverty? The answer is affirmative, since empirically numerous cases have shown that it is feasible to
find various initiatives and turn them into large detonating projects for the benefit of peasant families who live in an environment in which everything seems to be against them. As an example, I will cite two cases for the state of Oaxaca, the first refers to the use of forest resources of the communities of the Sierra Juárez (Sastré, 2008; Aquino-Vásquez et al., 2020) where not only has favorably the income of families and their communities but also the environment through a sustainable use of resources. Another example is given in the production of vegetables in greenhouses in communities of the Central Valleys of Oaxaca (Rodríguez et al., 2015), where marginalized small producers have ventured into tomato production in a profitable and competitive manner. Other examples for Mexico and Latin America are provided by IICA (2010). The objective of this work was to validate the operational methodological model called Model for the competitiveness of small farmers in extreme poverty based on agribusiness that allows promoting the competitiveness of small farmers through their incorporation into the market economy through the identification and implementation of agribusinesses that promote the efficient use of their scarce resources and take advantage of their potential in a sustainable way.

2 MATERIALS AND METHODS

Location and characteristics of the areas where the study was carried out. The work was carried out in four states of the Mexican Republic, Veracruz, Yucatán, Chiapas and Oaxaca, in each of them a pilot municipality was selected, the studied municipalities are listed in Table 1 where the coordinates and altitude are indicated, while Figure 1 shows its location in geographical form.

The municipality of San Andrés Tuxtla is located in the south of the state of Veracruz, at the coordinates 18° 27’ north latitude and 95° 13’ west longitude, at an average altitude of 300 meters above sea level. The municipal surface presents gentle slope hills to the abrupt ones. The region has the characteristic of being a repository of enormous biodiversity, favored by its geographical position, in the middle of the coastal plain, its orientation and the amplitude of its altitudinal gradient, from sea level to 1720 meters above sea level, and that make it possess of a large number of microclimatic and soil conditions, which favor the diversity of habitats, and plant and animal species, although the predominant climate most of the year is warm-humid Aw2, and as part of the Papaloapan River sub-basin.
The municipality of Tahdziú is located between parallels 20° 12’ and 20° 15’ north latitude and meridians 88° 51’ and 88° 59’ west longitude. The municipality occupies an area of 53.65 km² and represents 0.5% of the State's territory. It limits to the north with Yaxcaba, to the southeast with Peto and to the west with Chacsinkín.

Ocotepec. The municipal head of the municipality is located at 17° 13’ 27” north latitude and 93° 09’ 47” west longitude, at an altitude of 1,500 m above sea level. The municipality of Ocotepec has a territorial extension of 62.00 km². Ocotepec borders to the north with the municipality of Chapultenango, to the east with the municipality of Tapalapa, to the south with the municipality of Coapilla, to the southwest with the municipality of Copainalá, to the east with the municipality of Francisco León.

The municipality of San Jerónimo Taviche is located in the central part of the State, in the Central Valleys Region, at the coordinates 96° 35’ west longitude and 16° 43’ north latitude, at an altitude of 1,700 meters above sea level. It covers an area of 213.06 square kilometers and the area of the municipality in relation to the State is 0.22, in which plains and small elevations are observed, the highest comes from the Cerro Labrador mountain range, the soil is thin from the disintegration of parent rocks, which are 10 or less centimeters deep.

Table 1. Municipalities with high marginalization where the model for competitiveness based on agribusiness was validated.

<table>
<thead>
<tr>
<th>Estate</th>
<th>Municipality</th>
<th>Coordinates</th>
<th>Altitude (masl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veracruz</td>
<td>San Andrés Tuxtla</td>
<td>18° 27’ north latitude and 95° 13’ west longitude</td>
<td>300</td>
</tr>
<tr>
<td>Yucatán</td>
<td>Tahdziú</td>
<td>20° 12’ and 20° 15’ north latitude and 88° 51’ and 88° 59’ west longitude</td>
<td>32</td>
</tr>
<tr>
<td>Chiapas</td>
<td>Ocotepec</td>
<td>17° 13’ 27” north latitude and 93° 09’ 47” west longitude</td>
<td>1500</td>
</tr>
<tr>
<td>Oaxaca</td>
<td>San Jerónimo Taviche</td>
<td>6° 43’ north latitude, 96° 35’ west longitude</td>
<td>1700</td>
</tr>
</tbody>
</table>

Source: Own Elaboration, 2018
Figure 1. Location of study communities in southeastern Mexico.

Source: Own Elaboration, 2018

3 MODEL FOR COMPETITIVENESS

The model for the competitiveness of small farmers in extreme poverty based on agribusiness used as a methodological tool is presented schematically in Figure 2. This model is based on local conditions and from the perspective of local actors by developing their vision and mission. It is based on the use of local potential such as land, water, climate, labor, plant diversity, animal diversity that, complemented with a vision of the market, develops the agribusiness or businesses competitively. It consists of four successively linked phases, which are: Diagnosis, Incubation, Development and Maturity, each phase in turn consists of two subphases in which the actions to be followed for the development of successful agribusinesses are specified.
1. **Diagnosis.** This stage begins in those communities where there has already been previous work and concerns and interest in preparing investment proposals have been collected. It is the stage of gathering information and shaping the frame of reference.

   **Actors and Environment.** It refers to the process of compiling and analyzing information from the environment and the actors that contribute to the identification of investment opportunities, such as documentary information, field trips, workshops, informal meetings with interested local producers, meetings with local authorities, gathering of surveys, among others. The objective is to form a local reference framework that serves to formulate, technically and economically support possible competitive businesses with full knowledge of the current local reality. The environment refers to both the physical environment and the socioeconomic environment such as climate, precipitation, soil types, land uses, main primary productive activities, real production options, species niches, water availability, population characteristics, organizations existing, population size, labor availability, local experiences and knowledge, points of view about production possibilities, people's expectations, own initiatives, among others.

   **Briefcase of opportunities.** With the information collected as input and under an interactive process with the stakeholders, a Briefcase of opportunities is structured with
preliminary information on possible businesses that can be carried out in the community. It consists of a simple document that outlines the potential business options identified and briefly characterized, highlighting the reasons for considering business options (vocation of the land, experience and knowledge, available infrastructure). This Briefcase of opportunities is agreed upon with the stakeholders and once completed, a rating system is jointly established to prioritize the alternatives.

2. **Incubation.** In this phase, the selection of the best business alternative(s) is carried out through a prioritization supported by technical and socioeconomic criteria and the business plan of the best qualified alternative(s) is prepared. Priorization. Through consensus with the stakeholders using a previously agreed rating system, the following rating criteria are considered:

Criterion 1: climatic and soil conditions. It is about seeing if the conditions are considered favorable for the development of the species or crop that you want to establish or for the supply of raw material, to achieve good results in yield or productivity according to its edaphic and climatic requirements.

Criterion 2: market. Questions are answered, such as: is there a market for the product that is generated? Where would it be sold, at what price would it be sold, are there conditions for adequate transportation, needs for the organization of the sale, etc.

Criterion 3: available technology. The availability of information for a good production such as technological packages, technological publications and in general recommendations for the species in the local context is analyzed, this is the technological offer. Local knowledge is not ruled out, that is, the experiences of the actors in terms of production processes. In fact, local knowledge is considered a strength of the project.

Criterion 4: available infrastructure. This criterion is important to define projects already underway, for example, there may already be some infrastructure such as greenhouses, roads, warehouses, irrigation systems, dams, water pots, wells whose project implies a better use, a higher rating will be given to alternatives take advantage of the available infrastructure.

Criterion 5: motivation of the actors. The human factor is fundamental, in this criterion the motivational state of the actors to undertake a new project is evaluated, if they are willing to face new challenges both in the productive and organizational aspects, which also implies a strong training and learning process.

Each of these criteria is qualified by consensus using the following: Scale: 5=excellent, 4=good, 3: fair, 2: bad, 1: very bad.
4 BUSINESS PLAN

A business plan "is a document written in a simple and precise way, which is the result of planning. This document shows the objectives that are to be obtained and the activities that will be carried out to achieve said objectives" (Weinberger, 2009, cited by Andía and Paucara, 2013). The best qualified alternative was taken and the business plan was prepared through participatory work and agreed with the actors involved, the following components were considered: Definition of the business model Market Profile Organization model Investment and risk analysis future development and Business plan document.

5 DEVELOPMENT

Start up. It consists of the start of operations of the business plan. 

Consolidation. Includes actions and activities to consolidate agribusiness, and the establishment of a quality culture in accordance with the mission and vision.

6 MATURITY

continuous improvement. It refers to the stage in which agribusiness is heading towards a culture of quality as daily life, whose elements are raised by Blanco and Gutiérrez (2008), four criteria are met that as a whole determine a culture of quality, efficiency and competitiveness, such criteria They are: People, Processes, Customers and Value created. How to maintain the motivation, interest, efficiency and productivity of the people who participate; how to continuously improve both production and organizational processes and market appropriation; How to improve the relationship with customers to achieve their full satisfaction and continue to purchase the product or products; and in terms of value created, how to continuously improve the product to keep it in the tastes and preferences of consumers.

The role of INIFAP in this business management model for the competitiveness of small farmers consists of the following actions:

• Accompany the process, it can be throughout the process in the stages that the model considers, that is to say, being a facilitator of the process of identification, formation and consolidation of the agribusiness.

• Participate in the diagnosis of potentialities, in technical field tours and in workshops with producers.

• Provide the existing technological offer for the selected production options.
• Develop actions for the generation, validation and transfer of technology aimed at strengthening the business process

7 RESULTS AND DISCUSSION

Business opportunity portfolios. In the four business portfolios prepared, which are attached to this report, the opportunities detected and for which there is productive, technology and market potential are clearly and broadly indicated. Below (Table 2) the opportunities for each site are listed, as well as their qualification according to technical, economic and market criteria.

<table>
<thead>
<tr>
<th>Estate</th>
<th>Business Alternatives</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veracruz</td>
<td>High-yield improved maize (Zea mays) production</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>Maize intercropped with fruit trees (MIAF)</td>
<td>24.0</td>
</tr>
<tr>
<td></td>
<td>Tropical fruit production</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>Tropical fruit transformation</td>
<td>21.0</td>
</tr>
<tr>
<td>Yucatán</td>
<td>Habanero (Capsicum chinense) production</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>Stevia (Stevia rebaudiana) Production</td>
<td>22.0</td>
</tr>
<tr>
<td></td>
<td>Diversified production</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>Stamped wax beekeeping production</td>
<td>20.0</td>
</tr>
<tr>
<td>Chiapas</td>
<td>Hass avocado (Persea americana) production under the MIAF system</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Peach (prunus persica) production under the MIAF system</td>
<td>23.0</td>
</tr>
<tr>
<td></td>
<td>Production of bananas (Musa Spp) for table and frying</td>
<td>14.0</td>
</tr>
<tr>
<td></td>
<td>Squash (Sechium edule) production</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>Citrus production</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>Allspice (pepper spp) production</td>
<td>18.0</td>
</tr>
<tr>
<td>Oaxaca</td>
<td>Production of mezcal with Agave Tobasiche (Agave Karwinskii)</td>
<td>23.0</td>
</tr>
<tr>
<td></td>
<td>Greenhouse tomato (Solanum lycopersicum) production</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Royal palm (Roystonea regia) production for ornamentation</td>
<td>14.0</td>
</tr>
<tr>
<td></td>
<td>production of castor beans (Ricinus communis) for biofuel</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>Improved corn (Zea mays) production</td>
<td>17.0</td>
</tr>
</tbody>
</table>

Source: Own Elaboration, 2018

7.1 AGRIBUSINESS LAUNCHED

Four business plans were prepared and implemented according to the business opportunity that achieved the highest score in the qualification carried out in phase one. Table 3 presents the main characteristics of the business plans prepared and implemented, as well as some profitability indicators.
7.2 PRODUCTION AND TRANSFORMATION OF FRUIT TREES: JAMS SAN ANDRÉS TUXTLA, VER.

The producers participating in the project carry out the Milpa Interspersed with Fruit Trees (MIAF) system, where they establish corn strips interspersed with living walls of fruit species such as chicozapote, citrus, and other tropical fruit trees, because their system already has several years now they have a considerable production of fruits, mainly the sapote boy, for which they decided to start an agribusiness consisting of the transformation of the fruits into jams and thus add value and obtain a better price and income. The amount of the initial investment was $370,970.00 with a Cost Benefit Ratio (RBC) of 3.29 and an Internal Rate of Return of 35%. Currently this project continues to prosper by obtaining its own brand and establishing an organization called Sociedad de Producción Rural (SPR).

7.3 PRODUCTION AND COMMERCIALIZATION OF STEVIA IN TAHDZIU, YUCATÁN

In Tahdziu, Stevia thrives very well, it is a herbaceous or shrubby plant with opposite leaves, trinerves and small heads, arranged in panicles; a sweetening substance more powerful than sugar is extracted from its leaves. The sweetener that is extracted from this plant, in the form of a white powder or transparent liquid, has very positive properties for human health. Stevia has become popular due to the sweetness of its leaves, which are between 15 and 30 times sweeter than sugar, which is why it has been used since ancient times by indigenous peoples who consumed it to sweeten drinks, such as mate, and chewed its leaf for its sweet taste (1). Currently, natural Stevia is a sweetener of choice when we want to avoid the pro-inflammatory and extreme effects of some other natural sweeteners. The participating producers made the decision to prepare the business plan and start commercial production. The amount of the initial investment was 411,134.00 with an RBC of 2.90 and an IRR of 100%.

7.4 PRODUCTION AND COMMERCIALIZATION OF HASS AVOCADO IN SAN PABLO HUACANÓ, OCOTEPEC, CHIS

The group of participating producers had been practicing the Milpa Interspersed with Fruit Trees (MIAF) system for several years and unlike the case of San Andrés Tuxtla, Ver., the fruit tree that they have established as a living barrier is the Hass avocado, for which they decided to increase the surface planted under this system in such
a way that they obtain their corn for human consumption and avocado as a monetary income. It should be noted that this fruit presented a very attractive price, which favored the motivation to carry out the business plan. An initial group of 12 people invested an amount of $642,622.00. The RBC was 4.89 and the IRR was 41%.

7.5 HIGH-YIELD TOMATO PRODUCTION IN SAN JERÓNIMO TAVICHE, OAX.

A group of 36 producers from the community of San Gerónimo Taviche, tired of producing rainfed corn and not making a profit, decided to venture into greenhouse tomato production, which is why they proceeded to prepare the business plan. They obtained financial support from the then Commission for the Development of Indigenous Peoples (CDI) and established 36 greenhouse buildings of 1000m² each. The agribusiness reported an RBC of 1.30 and an IRR of 45.95%. Growers now produce at very competitive levels with yields exceeding 25 k/m² and quality comparable to the most productive areas of Mexico.

Previous agribusinesses have allowed other collateral benefits obtained, such as the formation of formal associative figures such as Rural Production Societies, mostly, which has allowed them to negotiate financing and other support, greater access to training, technological tours, and market appropriation.

Table 3. Main characteristics of agribusiness launched

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Title</th>
<th>No. of partners</th>
<th>Investment amount ($)</th>
<th>Relation Benefit Cost</th>
<th>VAN</th>
<th>TIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Andrés Tuxtla</td>
<td>Production and transformation of fruit trees: Jams San Andrés Tuxtla</td>
<td>25</td>
<td>370,970.00</td>
<td>3.29</td>
<td>1,064,042</td>
<td>35.0</td>
</tr>
<tr>
<td>Tahdziu</td>
<td>Production and marketing of Stevia (Stevia rebaudiana, Bertoni). Products: platinum, leaf and stems</td>
<td>6</td>
<td>411,034.00</td>
<td>2.90</td>
<td>620,725</td>
<td>100.0</td>
</tr>
<tr>
<td>Ocotepe</td>
<td>Hass avocado business plan of the producers of San Pablo Huacanó, Ocotepe, Chiapas Mexico</td>
<td>12</td>
<td>642,622.00</td>
<td>4.89</td>
<td>6,169,738</td>
<td>41.0</td>
</tr>
<tr>
<td>San Jerónimo Taviche</td>
<td>High-yield tomato production</td>
<td>36</td>
<td>6,541,459.00</td>
<td>1.30</td>
<td>5,731,766</td>
<td>45.95</td>
</tr>
</tbody>
</table>

Source: Own Elaboration, 2018
8 CONCLUSIONS

Even in conditions of poverty and marginalization, there is potential to implement agribusinesses that allow families to improve their income and therefore their competitiveness. These opportunities are reflected and based on the four portfolios of business opportunities prepared with the aim of developing agribusiness. Four profitable business plans were developed and implemented, which were launched and are currently operating. These business plans are focused on strengthening the income of poor and marginalized producers with a market and competitiveness approach. The model for the competitiveness of small farmers in extreme poverty based on agribusiness was validated, which considers various stages from the diagnosis of the community, the incubation of the business and its consolidation through continuous improvement.
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