

INVESTMENT PROJECT FOR AN ORGANIZATION FOR SOCIAL SOLIDARITY OF THE ECONOMY IN YAQUI VALLEY

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Abstract.

A proposal for an investment project for an Organization of the Social Sector of the Economy (OSSE) in the Yaqui Valley, BÁCUM, Sonora is presented. It is based on the Competence Standard EC0020 of the National Council for Standardization and Labor Competencies (CONOCER), which guides the formulation of investment projects in the rural sector. The objective of this work is to support the design, preparation and evaluation of a draft version for a rural OSE. The methodology applied included the integration of a specialized work team, the presentation of the standard to the members of the OSE, and the preparation of the initial draft of the project.

The analysis of the environment was carried out using strategic planning tools, identifying the strengths, weaknesses, opportunities and threats of the project. The results highlighted the viability of the project with an Internal Rate of Return (IRR) of 34.6% and a Cost-Benefit (C/B) ratio of 1.04. In addition, key strategies for the commercialization of organic pots in the municipalities of BÁCUM and Cajeme were identified.

The project has proven to be viable both financially and operationally, offering important benefits for rural producers and contributing to the economic and social development of the region. Organic pots, made from biodegradable materials and natural nutrients, present an innovative and ecological solution for the agricultural sector, reducing pollution and improving sustainability.

Keywords: Rural investment, social economy, Organic pots, Sustainable agriculture, Environmental analysis, CONOCER standards

Resumen.

Se presenta una propuesta de proyecto de inversión para una Organización del Sector Social de la Economía (OSSE) en el Valle del Yaqui, BÁCUM, Sonora. Se sustenta en la Norma de Competencia EC0020 del Consejo Nacional de Normalización y Competencias Laborales (CONOCER), que orienta la formulación de proyectos de inversión en el sector rural. El objetivo de este trabajo es apoyar el diseño, elaboración y evaluación de un proyecto de versión para una OSE rural. La metodología aplicada incluyó la integración de un equipo de trabajo especializado, la presentación de la norma a los integrantes de la OSE, la elaboración del borrador inicial del proyecto.

El análisis del entorno se realizó mediante herramientas de planeación estratégica identificando las fortalezas, debilidades, oportunidades y amenazas del proyecto. Los resultados destacaron la viabilidad del proyecto con una Tasa Interna de Retorno (TIR) de 34,6% y una relación Costo-Beneficio (C/B) de 1,04. Además, se identificaron estrategias clave para la comercialización de macetas orgánicas en los municipios de BÁCUM y Cajeme.

El proyecto ha demostrado ser viable tanto financiera como operativamente, ofreciendo importantes beneficios para los productores rurales y contribuyendo al desarrollo económico y social de la región. Las macetas orgánicas, elaboradas a partir de materiales biodegradables y nutrientes naturales, presentan una solución innovadora y ecológica para el sector agrícola, reduciendo la contaminación y mejorando la sustentabilidad.

Palabras clave: Inversión rural, Economía social, Macetas orgánicas, Agricultura sustentable, Análisis ambiental, Normas CONOCER

INTRODUCTION

According to the National Institute of Social Economy (INAES, 2023), the Social Economy is defined as all economic activity carried out by Social Sector Organizations, where decision-making is considered in a democratic order, the ownership of resources is managed in a social manner and an equitable distribution of benefits is made among members, always maintaining social commitment to the community [1].

The Global Social Economy Forum (GSEF), an international association of local governments, networks and civil society actors, is committed to promoting the Social and Solidarity Economy (SSE) as a means to achieve inclusive and sustainable local development. They describe that in Mexico, the Law of Social and Solidarity Economy, published in 2012, regulating the seventh paragraph of article 25 of the Political Constitution of the United Mexican States, defines the Social Sector of the Economy as the one made up of the set of social organizations, called Organizations of the Social Sector of the Economy (OSE): ejidos, communities, workers' organizations, cooperative societies, companies that belong mostly or exclusively to workers and, in general, all forms of social organization for the production, distribution and consumption of socially necessary goods and services [2].

The National Council for Standardization and Certification of Labor Competencies (CONOCER), has the purpose of providing an instrument to strengthen economic competitiveness, the capacity for growth and social progress for the benefit of Mexico, through the National System of Competencies (SNC) of people [3].

The SNC is an instrument of the Federal Government that contributes to the strengthening of people's competencies, understanding competencies as the integral actions to identify, interpret, argue and solve problems with suitability and ethical commitment, mobilizing the different knowledge: being, doing and knowing (Tobón S., 2010; Tobón S. P., 2010^a, cited in [4]. Regarding Strategic Management, it is defined as the art and science of formulating, implementing and evaluating decisions through the functions that allow a company to achieve its objectives [5].

The evaluation of labor competencies is integrated into the human resource management processes, being located both in the selection of personnel and in performance management [6].

Considering, of course, the strategy as the declaration of the company's missions, the establishment of objectives in light of internal and external forces, the formulation of specific policies and strategies to achieve the objectives

and ensure their correct implementation, in such a way that the basic purposes of the organization are fulfilled. [7] It is asserted, therefore, that there are three stages - namely, formulation, implementation and evaluation - that strategic management must follow.

The formulation of the strategy includes the creation of a vision and mission, identification of opportunities and external threats, determination of strengths and weaknesses, establishment of long-term objectives, creation of alternative strategies and choice of specific strategies to follow [8].

[9] He mentions that a project is the search for an intelligent solution to the problem posed, which tends to solve a human need. Consequently, we can define as many ideas, investment sizes, technologies and methodologies that address approaches aimed at comprehensively satisfying the human being.

The design of new investment projects must promote a long-term life cycle, so criteria have been established for their development, for example, the EC0020 competency standard "Formulation of the design of investment projects in the rural sector", allows verifying that it is developed with the efficiency required to achieve the objectives [10], such is the case of the social group "BioTiesto" in the Yaqui Valley, Bâcum, Sonora. The investment project developed for this company follows the guidelines of EC0020; as a reference for the development of projects that comply with the elements described in this article.

DEVELOPMENT

Materials

This work is based on the Competence Standard (EC0020) of CONOCER (Figure 1), which is called "Formulation of the design of investment projects in the rural sector", which aims to be a required reading document for the social sector that designs investments for rural projects, as it will be decisive for the evaluation and certification of these.

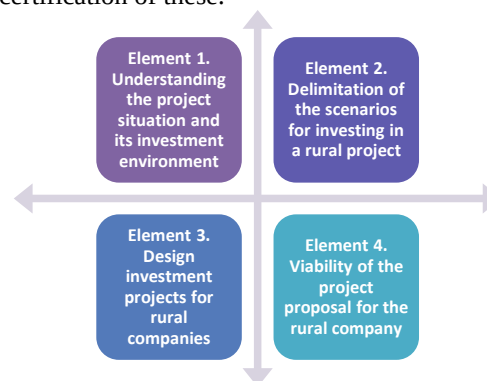


Figure 1. Elements that make up the EC0020 Competence Standard.

The EC0020 consists of 4 elements, and each one describes the evaluation criteria that must be met, which are performances, products, knowledge and attitudes/habits/values [11].

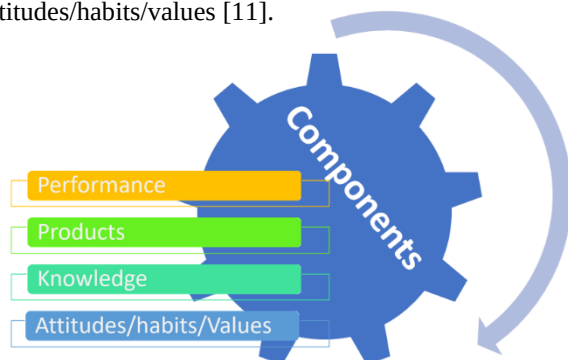


Figure 2. Components of the elements of the Competence Standard.

For a more precise understanding, performances refer to the demonstrations of technical competence that are required to achieve the Competence Standard (EC). These performances include the ability to apply specific skills and relevant techniques in the context of the project, ensuring that the established criteria of quality and efficiency are met.

The products, on the other hand, are the deliverables that are generated throughout the development of the project. These products can be documents, reports, prototypes or other artifacts that demonstrate the progress and fulfillment of the project objectives.

The quality and relevance of these products are essential for the evaluation of the project.

Regarding knowledge, these cover the technical terminology and concepts that are essential for the understanding and correct execution of the project. It is crucial that all those involved understand and use this terminology appropriately to ensure effective communication and the correct interpretation of the project requirements and results.

Finally, in the section on attitudes, habits and values, reference is made to the soft skills necessary for the successful completion of the project. These skills include the ability to work in a team, responsibility, professional ethics, adaptability and the ability to solve problems.

These non-technical skills are essential to create a collaborative and effective work environment, allowing the project to be carried out efficiently and effectively.

Methods

The EC0020 methodology consists of the following:

1. Integration of the work team made up of investment and social program professionals, responsible persons and members of the OSSE.
2. Presentation of the EC0020 to the members of the OSSE.
3. Creation of the initial draft of the investment (project) based on the EC0020 of CONOCER.
4. Evaluation of the project using the instruments designed by CONOCER.
5. Verification and closing of the findings found to give way to the final review of the project.
6. Generation of the final version in printed format of the investment project.

In point 3, an important part of the investment project development process consists of fully complying with the provisions of the EC, since point 4 is where an evaluation determines whether the proposal complies with the provisions of the EC, for which the project leader relies on checklists and observation guides designed based on the quality statutes established in EC0020 of CONOCER "Formulation of the design of investment projects in the rural sector".

DISCUSSION AND ANALYSIS OF RESULTS

Element 1 of EC0020: Understanding the project situation and its investment environment

- a) Diagnosis to identify the current situation and the environment: The main problems to be solved for the construction of the investment proposal are identified with the participation of the OSSE representatives, defining the mission and vision.
- b) Identification and preparation of the Internal Factors Evaluation Matrix (MEFI), that is, both strengths and weaknesses.
- c) Preparation of the External Factors Evaluation Matrix (MEFE), considering the opportunities and threats of the proposal.
- d) Use of the competitive profile format.
- e) Presentation to the OSSE of the project developed in this first stage to break down the activities carried out to achieve the diagnosis.

Element 2 of EC0020: Delimitation of the scenarios for investing in a rural project

A strategic diagnosis is made for the rural project in which the investment will be made: The most relevant aspects were identified by preparing the SWOT analysis.

Both opportunities and threats are determined in different areas, economic, social, technological, legal, etc.

The diagnosis of strengths and weaknesses is validated, by representing those areas of opportunity that should be taken advantage of to strengthen the project and, of course, the organization that will implement it, in addition

to those that should be changed or mitigated to reduce risks and failures.

Table 1. SWOT analysis.

Key Internal Factors
Strengths
Business knowledge (work experience)
Experience in nursery seedling management
Trust and respect among members of society
Management of information technologies
Weaknesses
Lack of knowledge of fiscal and accounting aspects
Lack of knowledge of organizational aspects
Lack of knowledge of health regulations
Lack of knowledge of forms of advertising
Not having a sales force
Key External Factors
Opportunities
Increased sales of organic pots
Tax policies
Increased population
Support for starting a business (Government calls for tenders)
High-tech equipment and machinery
Threats/risks
Unemployment and inflation
High interest rates (loans)
Environmental regulations
High cost of equipment and machinery

Results obtained through the application of diagnostic instruments

Based on this analysis of the environment (using the MEFI, MEFE, competitive profiles and SWOT matrices), the OSSE determines and classifies the following strategies, respecting their relevance:

- Introduction of current products or services in BÁCUM and Cajeme, both municipalities located in the south of the State of Sonora (market development) [12, 13].
- Setting the goal of participating to a greater extent in the market of current products by adding marketing tactics (market penetration).
- Seeking to increase sales through active listening to the customer, improving the coverage of their needs with the products offered, in particular, generating strategies that benefit perceptions about price, hygiene and availability (product development).
- Obtaining financial support from government agencies (INAES).

Situation of the members of the OSSE group (current scenario).

The members of the social group are originally from the Yaqui Valley, in the south of Sonora, who are employed in agricultural activities and in-home care. Their average

personal income amounts to TWO daily minimum wages, that is, they receive a daily salary of around \$497.86 according to information from CONASAMI [14]. However, this family income is temporary, causing constant periods of unemployment and lack of income in many households.

In addition, the means of production are largely concentrated - mainly in the Yaqui Valley - making their access very limited. Likewise, the members of this OSSE do not have any type of means of production - that is, they do not have land, assets or instruments to produce - because they are people with limited resources who usually rent plots to plant wheat and in this way obtain sustenance for their family nuclei, basically, in activities for self-consumption. For this reason, OSSE has obtained a ten-year land use agreement for the Organic Pots project for this investment opportunity.

The growth in the marketing of organic pots is based on the increase in social and ecological awareness of both companies and the general population who aspire to improve their economy while reducing their carbon footprint. This is possible because the pots produced by OSSE in the Yaqui Valley region are cheaper than conventional ones and reduce the use of chemical fertilizers by containing nutrients that will serve the seedlings in a natural and safe way [15].

Also, in order to optimize OSSE's resources and inputs, it will seek to increase the consumption of pork products through defined strategies that allow offering the potential consumer price, quality and availability of the product.

Trend scenario

3% growth of the target population, with its respective impact on the consumption of organic pots. Annual sales growth of 5% through defined strategies to offer highly innovative products: Good quality, competitive price and immediate availability.

Desirable situation scenario

The idea of the "Organic Pots" project arose when it was presented as an initiative by the representatives of the group to generate employment opportunities, in addition to the growing economic need to have constant income for personal and family benefits, who seek this investment opportunity to guarantee social well-being. This project requires a total of \$432,000.00 pesos to produce and market the products to be made, with an average sales forecast of 36,000 pots for the first year, considering a unit sales price of \$12.00 pesos.

Element 3 of EC0020: Design investment projects for rural companies

Product and Service Features

Pots made from biodegradable organic material, free of plastic and toxic substances, will be offered, which will provide natural nutrients of animal origin to the different seedlings in nurseries and greenhouses, making this product the best option for producers to solve the problem of high levels of contamination in the agricultural sector due to the poor management of plastic waste.

Product Analysis by the Consumer

Demand: Organic pots will be sold in the following locations: Ciudad Obregón (Cajeme): 436,484 inhabitants and BÁCUM: 23,151 inhabitants [12].

Both BÁCUM and Cajeme are located in the state of Sonora and are an important market for marketing, as they have a number of prospects who have increased their interest in this idea, even before it has materialized, since the clients are mainly farmers and nurserymen.

The points of sale will be located in BÁCUM and Cajeme, in the south of the state of Sonora; retail sales will be at the address established by the OSSE as the company's address; wholesale sales, at the request of the client, may be made with home delivery.

The pots will be sold and delivered upon payment, unless there is a credit agreement for the sale. Potential customers are equivalent to 10% of the population of the aforementioned municipalities of BÁCUM and Cajeme, in the south of the State of Sonora, where there is a large number of farmers who demand this type of input on a daily basis, since agriculture is the most prominent economic activity in this part of the State.

Potential customers are also around 1% of the population who, in some month of the year, demand pots for private and popular festivals (Table 2).

Table 2. Buyers.

Product	Pot Model 1	Pot Model 2	Pot Model 3
Main buyers	Víctor Fuentes Ramos	Juana Domínguez	Susana Dávila Ramos
Location	BÁCUM Sonora	Obregón City	Obregón City
Volume	9,000	82080	2688
Periodicity	Monthly	Annual	Weekly
Project income	25%	19%	32%
Document supporting the sale	Letter of intent to purchase	Letter of intent to purchase	Letter of intent to purchase
Payment terms	Cash	Cash	Cash

On the other hand, the interest in gardening in families and with it the increase in the demand for pots for such

purposes, is increasing, so it is estimated that sales to the general public will occur every week.

And of course, the economic issue suffered by farmers, who generally sacrifice part of their profits when transplanting and run the risk of the plant dying; with planting in organic pots, this risk is eradicated.

Analysis of direct competition

- a) Main competitors: At least in southern Sonora, which is the target market to be covered, there is no direct competition for the product to be marketed (organic pots), however, the projects that could have greater similarity when selling products with the same name (pots), are those indicated in table 3.

Table 3. Competitors.

Name	ICAPSA	ORGAHUMUS
Product	PVC Pots	PVC Pots
Sale price	35	42
Terms of sale	Cash	Credit system
Other services	Home delivery	Online sales
Quality	Media	High

- b) Competitive advantages: It offers a unique product, being biodegradable, at 40% of the cost of the cheapest competitor and with a higher quality level.

Stock price analysis and proposed prices: Currently there is no direct competition for organic pots, which are sold at a lower cost (\$12), compared to conventional pots with a price of \$30 per piece.

Prices are defined considering the prices of direct and indirect costs and applying our profit margin. The analysis of the competition's prices indicates that the price is attractive enough to achieve the desired market share.

Product marketing analysis: Sales will be made offering both credit and cash sales; credits will be for 30 days and only for frequent customers, leaving new customers only the option of cash sales.

The dissemination will be done through social networks, in conferences with the associations of producers from the south of the State of Sonora, as well as through promotional posters, emphasizing that it is an organic pot project supported by INAES. Likewise, promotions will be designed according to current times to use affordable technology in the marketing strategy.

Annual sales program (Table 4): A sustained and staggered growth is estimated on a monthly basis. Continuous production is contemplated, with the first direct sales and through the program (letter of intent from

potential clients), which will be reflected in the second half of the first year.

Table 4. Summary of projected annual sales.

Product		Pot
Unit of Measure		Piece
Unit Price		\$12.00
Annual Units (in thousands)	Year 1	432
	Year 2	456
	Year 3	480
	Year 4	504
	Year 5	528

Technical feasibility analysis

3 hectares will be acquired for the project works. It is planned to locate: processing area (100x100 meters), warehouse area (100x100) and 20 areas (10x50). With this area it is projected to have a capacity to produce 29,150 pots per month and 349,800 annually, with an investment in equipment of \$44,712.00. Table 5 shows the production program.

The technological and equipment requirements are the following: Presses and molds of different sizes, drying pallets, shovels, mason's spoons, mixer, backhoe and minor tools.

Table 5. Production schedule.

Volume of pots	
Year 1	496,800
Year 2	524,400
Year 3	552,000
Year 4	579,600
Year 5	607,200

Administrative and organizational study of the project

The job description includes the members of the social group who are assigned as trusted workers, which will facilitate the organization and administrative development within the project.

The decision makers will be the members of the OSSE seeking to keep the business in the best conditions and continue growing in sales. The team is made up of seven positions with specific functions for the good development of the work: manager, sales, finance, production and quality, in addition to three workers.

The financial study of the project specifies the investment of the OSSE in terms of fixed investment, deferred investment and required working capital, as well as establishing the financial leverage and cash flows,

calculating expenses and income and showing the income statement of the working group.

Element 4 of EC0020: Viability of the project proposal for the rural company

The financial evaluation of the project presents the profitability supported by indicators such as the Net Present Value (NPV) and the Internal Rate of Return (IRR) for Organic Pots.

The above resulted in an IRR of 34.6% with a cost-benefit ratio (C/B) of 1.04, with which it is decided that the project shows financial feasibility and is accepted as viable by the OSSE.

On the other hand, related to the risk or threat analysis, an analysis of the potential risks of the project is prepared, as well as the impact they would have on its development, and alternatives and strategies are established to seek to reduce their effects (Table 6).

Table 6. Risks, impacts and strategies.

External force / factor	Risk / Threat	Probable impact	Strategy
Economic	Unemployment and inflation	Low sales	Making significant marketing efforts
	High interest rates (loans)	No financing	Obtaining financial support from INAES
Social, cultural, demographic and environmental	Environmental regulations	Difficulty in starting IP	Offering good products in Price – Hygiene – Availability
	Marginalized area	Low sales	Making significant marketing efforts
Technological	High cost in equipment and training	Digital Gap	Obtaining financial support from INAES

The group's analysis aims to have different promotion channels:

- 1) Make important marketing efforts
- 2) Obtain economic support from INAES and 3) Offer products at a good price – hygiene – availability.

Project sustainability analysis

In terms of regulations and the environment, follow-up will be established to what was initially indicated by the municipalities, who establish that pig farms must maintain a minimum distance of 500 meters from human settlements.

Another of the regulations that impact this project is the NOM-054 ZOO-1996/1998-06-08 by establishing a preventive measure in the form of quarantine for products derived from some form of animal compounds [16].

Additionally, in terms of biosecurity, reference is made to the production units to delimit the traceability that is technically justifiable for the biosecurity measures, to prevent outbreaks of vector-borne diseases that are processed there.

Therefore, the implementation of the project generates positive impacts in the area, economic and social improvement, in addition, animal waste will be transformed and used as raw material for the final product (pots), as well as positive effects on the flora by having an alternative to cutting down trees and promoting soil health.

This work proposes the development of a detailed guide for the development of investment projects in the rural sector, covering everything from the initial diagnosis to the evaluation of financial viability, with special emphasis on the analysis of performance and sustainability indicators. This guide could be applied in various rural contexts, being presented at conferences and colloquia for validation and continuous improvement.

It is recommended that longitudinal studies be carried out to evaluate the social and economic impact of the project in the long term, as well as the exploration of new market opportunities and derived products that contribute to the sustainability and growth of the social and solidarity sector of the economy.

CONCLUSIONS

The objective of this work was to support the design, development and evaluation of an investment project for an Economic Organization of the Rural Social Sector (OSES) in the Yaqui Valley, B́acum, Sonora, based on the Competence Standard EC0020 of the National Council for Standardization and Labor Competencies (CONOCER). This objective has been satisfactorily met.

The project has demonstrated its financial and operational viability, with an Internal Rate of Return (IRR) of 34.6% and a Cost Benefit (C/B) ratio of 1.04, confirming its potential to generate significant benefits for rural producers and contribute to the economic and social development of the region.

The organic pots, made with biodegradable materials and natural nutrients, represent an innovative and ecological solution for the agricultural sector, responding to the growing demand for sustainable products in the municipalities of B́acum and Cajeme.

During the development of the project, the four elements of the Competition Standard EC0020 were executed and evaluated in detail, which was essential to support Macetas Orǵnicas in the formulation and consolidation of its project. The SWOT analysis allowed to identify key

strategies for commercialization and risk mitigation, including market penetration and development, as well as obtaining government financial support. In addition, specific plans were outlined for the production and marketing of the pots, ensuring their competitiveness and acceptance in the local market.

REFERENCES

- [1] Instituto Nacional de la Economía Social (2024). [fecha de acceso 19 noviembre 2024]. URL disponible en <https://www.gob.mx/inaes>
- [2] Foro Global de la Economía Social (2024). [fecha de acceso 19 noviembre 2024]. URL disponible en <https://www.gsef2021.org/index.php/es/economia-social-y-solidaria-es-es/la-ess-en-mexico-es-es>
- [3] Organización Mundial del Trabajo. Centro Interamericano para el Desarrollo del Conocimiento en la Formación Profesional [en línea]. 2017. [fecha de acceso 21 de mayo de 2024]. URL disponible en <https://www.oitcinterfor.org/instituci%C3%B3n-miembro/consejo-nacional-normalizaci%C3%B3n-certificaci%C3%B3n-competencias-laborales-conocer>
- [4] DGEST. Proyectos integradores para el desarrollo de competencias profesionales del SNIT. Dirección General de Educación Superior Tecnológica. México: DGEST; 2013.
- [5] Gutiérrez, R. C. The UAAAN-HECHAG MODEL, as a proposal for strategic management of agribusiness. Revista mexicana de agronegocios, XI, 12. [en línea]. 2007. [fecha de acceso 15 de mayo de 2024]. URL disponible en <http://www.redalyc.org/pdf/141/14102012.pdf>
- [6] Gil Flores, J. La evaluación de competencias laborales [en línea]. Educación XX1, 83-106. 2007. [fecha de acceso 10 de mayo de 2024]. URL disponible en <http://www.redalyc.org/articulo.oa?id=70601006>
- [7] Sierra, E. R. C. El concepto de estrategia como fundamento de la planeación estratégica. Pensamiento y gestión, (35), 30. 2013.
- [8] David, F. R. Conceptos de Administración Estratégica (9a. ed.). México: Pearson Educación; 2003.
- [9] Urbina, G. B. Evaluación de Proyectos (7a. ed.). Mexico: McGRAW-Hill Interamericana Editores, S.A. de C. V. 2013.
- [10] Pinto Santos J.A., Poblano Ojinaga E.R., García Meléndez G. y Meléndez Gurza F.J. Elaboración de un Proyecto de Inversión de un OSSE de la Laguna de Coahuila, basado en el EC0020 del CONOCER. Academia Journal Ciudad Juárez, Investigación Interdisciplinaria, Tomo II. 2016.
- [11] Estándar de competencia EC0020 “Formulación del diseño de proyectos de inversión del sector rural” CONOCER [en línea]. 2020. [fecha de acceso 21 de mayo de 2024]. URL disponible en <https://www.gob.mx/incarural/documentos/ec0020->

[formulacion-del-diseno-de-proyectos-de-inversion-del-sector-rural](#)

[12] Secretaría de Economía. Data México. Cajeme, Municipio de Sonora. México [en línea]. 2020. [fecha de acceso 14 de mayo de 2024]. URL disponible en

<https://www.economia.gob.mx/datamexico/es/profile/geo/cajeme>

[13] Secretaría de Economía. Data México. BÁCUM, Municipio de Sonora. México [en línea]. 2020. [fecha de acceso 21 de mayo de 2024]. URL disponible en

<https://www.economia.gob.mx/datamexico/es/profile/geo/bacum>

[14] Comisión Nacional de los Salarios Mínimos (CONASAMI). Incremento a los Salarios Mínimos para 2024. México [en línea]. 2024. [fecha de acceso 04 de mayo de 2024]. URL disponible en

<https://www.gob.mx/conasami/articulos/incremento-a-los-salarios-minimos-para-2024?idiom=es>

[15] Murillo Valle, A., López Roa, M. L., Reyes Valenzuela, R., López Dyck, L., & López Modesto, J. E. La Lombriz Produce: Caso empresarial alineado al Estándar de Competencia EC0020. Academia Journals, 10(1). 2018.

[16] Secretaría de Gobernación. Diario Oficial de la Federación. NORMA Oficial Mexicana NOM-054-ZOO-1996, Establecimiento de cuarentenas para animales y sus productos [en línea]. 1998. [fecha de acceso 07 de mayo de 2024]. URL disponible en

https://dof.gob.mx/nota_detalle.php?codigo=4881982&fecha=08/06/1998#gsc.tab=0



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