

# Cuba Investment Portfolio

キューバ 投資ポートフォリオ



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# Project "Production and marketing of disposable material for medical use".



#### **Description:**

The creation of a joint venture to produce and market expendable material for medical use based on the advantages offered by its use for medical analysis and testing.

The foreign counterpart is required to provide: technology transfer, financing, equipment and technical advice, in order to produce in compliance with internationally established quality standards.

The annual domestic market is about 4.7 million USD, amounting to about 87 million disposable syringes, 8 million needles, 6 million serum sets, and eight hundred thousand units of blood injector set.

# <u>Investment modality:</u>

Wholly Foreign-Owned Enterprise

#### **Estimated Investment Amount:**

8 million USD

#### Location:

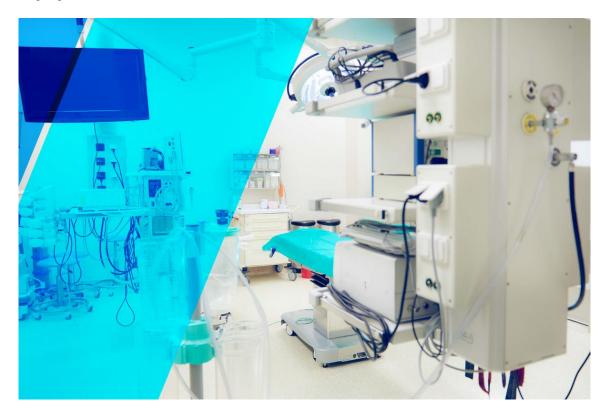
Sector A. Zone A-3. Mariel Special Development Zone

# **Contact information:**

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# Project "Production and marketing of high-tech medical equipment."



#### **Description:**

The project pursues the creation of a company dedicated to the manufacture and commercialization in the national and international markets of state-of-the-art biomedical technologies, with warranty services after-sales, maintenance, studies and associated technological solutions, aimed at the health, pharmacological and biomedical sector; mainly in the field of sterilization, preservation of biological samples, biomedical robotics, environmental control and protection, biosafety, laboratory technologies, control, analysis, monitoring and high-tech tests, based on the concept of "total quality", efficient, clean and eco-sustainable solutions.

# Modality of investment

Joint Venture or Wholly Foreign-Owned Enterprise

# **Estimated Investment Amount:**

In correspondence with the scope of the project

### Location:

Sector A. Zone A-3, Mariel Special Development Zone

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#### Project "Mining Red tailings in Moa, Holguín Province".



### Objective:

Red tailings are residues that are being generated and stored since 1961, with an accumulated volume estimated today at 80 million tons and will continue to be generated at a higher annual rate of 3 - 4 million tons in the next 20 years, which could be extended for another 25 years. They contain approximately 49.5% of Iron, about 0.07% of Nickel, 0.003% of Cobalt, and 6.32% of Aluminum Oxide, among other metals.

The purpose of the project is to subscribe an international economic association agreement to carry out the technical economic prefeasibility or feasibility studies. In case the results of the studies are positive, the intention is to establish a joint venture to carry out the detailed engineering, procurement, construction and operation of the Plant.

Another option to be considered is to export the mining material in its current state.

The international investors in this project have to have the financial, technological and market capacity to use or commercialize these tails.

# Cuban partner

Commercial Caribbean Nickel S. A. (CCN), has an experience of more than 30 years in the mining sector, it has negotiated and established business with companies and has carried out business projects with enterprises in Chile,

Canada, Australia, Belgium, United Kingdom, South Africa and other countries.

Future shareholders participation will depend on the results of the economic feasibility studies, the contributions made by the Parties and the provisions in force in the country.

#### Foreign investment modality

To sign an international economic association agreement to finance and carry out the necessary studies for the development and future exploitation of the mining tailings to obtain concentrates or metallized iron and other metals. Such studies will accomplish geological research works, technology development and technical economic prefeasibility or feasibility studies. Financial resources necessary to cover the business operations will be covered by the Foreign Party at its own risk.

Once the studies are concluded and approved by the parties, a joint enterprise in charge the project may be negotiated, and the investor will be able to capitalize its expenses and receive the benefits established in the Cuban legislation.

If as a result of the studies, the best economic option is to export the residuals in the current state, the foreign party will build the installations and facilities for the collection, hauling and transfer of the mineral to the port. In any case the Port of Moa will receive and operate whatever material is exported, being also possible the negotiation of an international economic association agreement for this purpose.

#### **Location**

Moa Municipality, Holguín Province



#### Term of Validity

The international economic association agreement will operate for two years, though it could be extended for a further year until the feasibility studies are concluded.

The Joint Venture may be created for 25 years, and may be extended with the prior authorization of the competent body.

The international economic association agreement for the export of the tails is valid until the parties agree to it.

# Estimated investment amount and key investment indicators

The cost of the studies is estimated at 2.5 million US dollars. If the conclusion of the evaluation is positive, then the amount of investment required for the construction and start-up of a factory to process the deposit's resources will be determined, as it is not possible to estimate the key economic indicators at this time.

The Moa area where the deposit is located has the proper infrastructure, in terms of roads, electricity and water supplies, and the Port of Moa, all of which will facilitate the investment and reduce its costs.

#### **Market**

The main content of these tails is iron, so it will be possible to develop a

technology to obtain concentrates, which would be used in steel mills together with other materials with a higher content of this metal.

The demand for iron to produce steels is wide, the emerging countries will present in the next 10 - 30 years increasing demands for steels of different types.

The possible export market are the steel mills of those countries. Internal consumption of this product to replace national scrap in the two Cuban steel mills.

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Project "Production and commercialization of bioproducts for agricultural use based on existing industrial capacities in Cuba"



#### **Objectives**

Produce and market bioproducts (biopesticides, biofertilizers and biostimulants) to meet domestic demand and export.

# Specific objectives:

- Acquisition of raw materials, reagents and inputs for the production of bioproducts for agriculture in existing biotechnological industrial facilities.
- Total recovery of the installed capacities, based on the acquisition of equipment that allows the scaling up in the 4 production plants and the automation of the processes.
- Identification and certification of suppliers of raw materials, reagents and inputs necessary for the production of bioproducts for agriculture
- Acquisition of raw materials, reagents and inputs for the production of biopesticides, biofertilizers and biostimulants to meet the identified demand.
- Identification of equipment suppliers (fermenters)



- Purchase of approved equipment
- Installation, commissioning of the equipment in the production plants
- Production scaling to achieve an increase in bioproduct volumes.

#### Location

The LABIOFAM Business Group has 2 biotechnological industrial facilities located in the provinces of Havana and Villa Clara, as well as 4 production plants in Artemisa, Mayabeque, Matanzas and Sancti Spiritus.



#### **Business model**

In Cuba there is knowledge about the use of bioproducts that dates back to 1988, when the Biological Control Program began, and later between 1991 and 1992 the research and development activity aimed at obtaining new products was promoted, accompanied by the establishment of the first production plants.

The LABIOFAM Business Group, the governing body of the production and marketing of Bioproducts for agriculture since 2012, has the largest industrial capacities for the production of bioproducts in the country, as well as a nationwide distribution network.

Currently, there are two modern industrial facilities with an installed technological capacity of 5,800,000 liters of fermented broth by fermentation technology submerged in each one, 1080 tons of production from two-phase

technology and 112 tons of dry product. In addition, there are 4 production plants that reach 770 tons of fermented product.

The proposed business modality is an International Economic Association, valid for 5 years, with the possibility to be prolonged up to 20 years.

#### Market Analysis:

The development of the production and use of bio-inputs is an alternative in the transition towards agroecology and an alternative for the development of the bio-economy, in which policies for productive development and sustainable management of natural resources in agriculture converge.

In the first case, it is a way for productive diversification and value-added production. In the second, its use contributes to improving and restoring soil quality and enhancing ecosystem services associated with the soil.

Currently, Cuba has 827,757 hectares of various crops and 200,000 hectares of sugarcane, not including pastures and fodder, and bioproducts are identified as a component of the strategy of integrated management of plant nutrition and crop protection, contributing to the substitution of 25-50% of fertilizers and up to 40% of chemical pesticides.

# **Cuban Entities Involved**

The Business Group of Biopharmaceutical and Chemical Productions LABIOFAM, through its companies: Havana Biotechnological Industrial Complex, LABIOFAM Sancti Spíritus Company and LABIOFAM Villa Clara.

# **Project Timeline**

The schedule includes 3 stages:

1st Stage: Start of production at the Havana Biotechnology Industrial Complex.

2nd Stage: Productive activation of the 4 production plants.



3rd Stage: Start of production at the Villa Clara Biotechnology Industrial Complex.

#### Financing Needs:

#### Bio-based production:

PRODUCT	QUANTITY
Liquids (submerged fermentation)	4 000 USD/T
Solid (two-phase fermentation)	8 500 USD/T

#### Activating production plants

EQUIPMENT	QUANTITY	
Purchase of equipment	3 million USD	

#### **Business Projection**

1st Stage: To start production at the Havana Biotechnology Industrial Complex. The first year begins with 75% of the installed capacity, with a gradual increase to reach 5,800,000 liters of fermented broth and 1,080 tons of two-phase production.

2nd Stage: To activate 4 production plants. 770 tons per year of bioproducts will be added.

3rd Stage: To start production at the Villa Clara Biotechnology Industrial Complex. It begins its first year with 25% of the installed capacity, with a gradual increase to reach 5,800,000 liters of fermented broth and 112,000 kg/year of dry product.

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**Project "Development of Citrus Production"** 



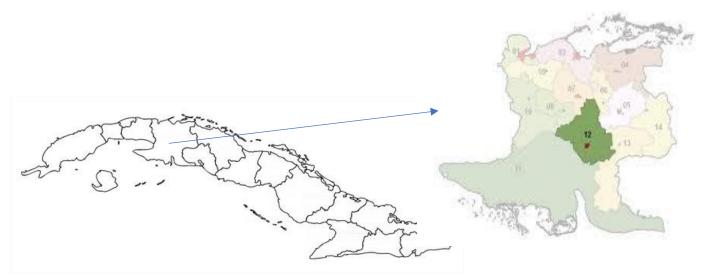
# **Objective**

Develop citrus production through the creation of capacities in irrigation and crop technologies to obtain fresh and industrialized products with exportable quality.

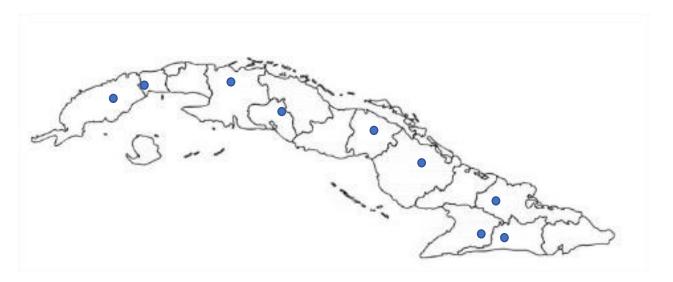
The newly created project conceives the development of crops in modules of 500 hectares, based on the introduction of new technologies for planting and other agricultural work, irrigation systems for plantations and the technological package of the crop.



### **Location**



The project proposal is located at the Victoria de Girón Agroindustrial Company in the province of Matanzas. This is a modular project, which can be expanded to reach 16,900 hectares, so it can be replicated in several provinces of the country: Pinar del Río, Artemisa, Matanzas, Cienfuegos, Ciego de Ávila, Camagüey, Holguín, Granma and Santiago de Cuba



#### **Business model**

The intention is to sign an international economic partnership agreement between a foreign entity and a Cuban company from the Agricultural Group to develop citrus production for a period of 15 years.



The Cuban side will make land available to the business for cultivation, guarantee the supply of water and the labor force.

The foreign party will finance the acquisition of fertilizers, pesticides, agricultural machinery and irrigation systems used in this activity.

The productive results obtained will be distributed in accordance with the proportion of contributions and expenses incurred by each party to the contract.

Cuba produced 750,000 tons of citrus fruits, of which more than 500,000 tons were exported annually to the European market of fresh and industrialized citrus fruits.

Citrus production in Cuba is favored by the following factors:

- Existence of agricultural infrastructure.
- Availability of land for the introduction of extensive planting and harvesting technology.
- Industrial capacities that support the proposed production levels.
- There is a Grain Research Institute and 2 territorial stations.

# List of Cuban entities that will be directly linked to the project.

- Ceiba Citrus Company.
- Victoria de Girón Agroindustrial Company
- Arimao Citrus Company
- Ceballos Agroindustrial Company.
- Sola Agricultural and Citrus Company
- Jiguaní Agricultural Company
- Jíquima Agricultural Company
- América Libre Citrus Company



#### <u>Investments</u>

The investment needs are mainly associated with the acquisition of fertilization systems, fertilizers, pesticides and agricultural machinery.

For an area of 500 hectares and a production of 11 thousand tons of citrus, the estimated investment cost is **5 million US dollars**.

Financing Needs: \$5 million for the following:

Resources Required	Reference	Hect	tares	Amount	
1.000.0001.004.000	Price (USD)	Year 1	Year 2	(USD)	
Fertilization System	7,500.00	200	300	3,750,000.00	
Technology Package (Fertilizers,		200	200	F00 000 00	
Pesticides, Herbicides)	1,000.00	200	300	500,000.00	
Agricultural Equipment	-	-	-	750,000.00	
			TOTAL:	5,000,000.00	

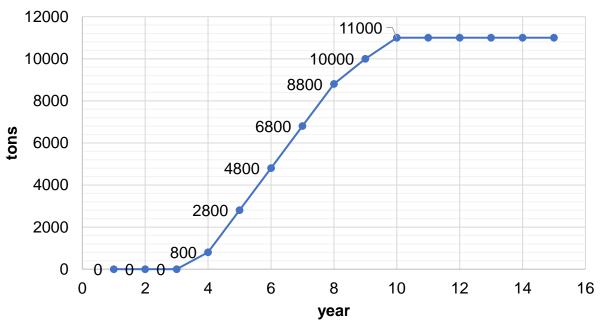
In addition, financing is required to import 6 sprayers, 5 tractors and a pruner.

#### **Business Projections**

By applying the established technological package, average competitive yields of 19 tons per hectare can be achieved. In a planting area of 500 hectares, it is expected to obtain an increasing production reaching 11 thousand tons in year 10, according to the following table:







Annual revenues of more than **USD 2 millio**n are projected from year 7 at market prices for fruit and industrialized products.

# **Estimated Export Prices**

Fruits	Prices (USD/t)
Orange	435.60
Grapefruit	417.20
Limes & Lemons	1,270.00
Tangerine	1,270.00
Industrial Products	Prices USD/t
Orange Juice Concentrate	1,800.00
Grapefruit Juice Concentrate	2,500.00
Simple Grapefruit Juice	650.00
Orange Oil	30,000.00
Grapefruit Oil	30,000.00
Persian Lime Oil Lemon	60,000.00



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Project "Production and marketing of high quality coffee for export and the domestic market".



#### **Objectives**

Promote the production and marketing of high-quality coffee beans for export and the domestic roasting market.

The scope of the project is as follows:

- To achieve an annual production of 1,100 tons of coffee for the domestic market and export.
- Introduce advanced technologies to achieve yields of 0.56 and 0.96 tons per hectare of Arabica and Robusta coffee in the Escambray Mountains.
- Guarantee in advance minor equipment, materials and inputs to coffee producers and entities in the production chain from the field to the industry.

To do this, it is necessary to import equipment, inputs, technological packages and specialized products; and to sign contracts for infrastructure works and services necessary for the fulfillment of its objectives, as well as for the supply, assembly, operation and maintenance of equipment for coffee production, and its commercialization at the domestic and export markets.

This is a modular project to increase coffee productions up to 4,600 hectares in the Escambray mountains at the central provinces of the country. It can be replicated up to 20,000 hectares throughout all provinces with the participation of different producers and entities, according to the investor's interest.

#### Location

The "Eladio Machín" Coffee Processing Company, located in Cumanayagua, Cienfuegos province, and cooperatives of coffee producers in the provinces of Cienfuegos, Villa Clara and Santi Spiritus.

#### **Business model**

The intention is to sign an international economic partnership agreement for agricultural production, under Law No. 118 of the Foreign Investment Law, between a foreign company and a Cuban entity, for a period of 5 years, which may be extended.

The "Eladio Machín" Processing Plant will provide to the business the labor force, land and assets existing in the current processing plant, as well as the wet and dry processing centers, among other facilities, to guarantee the production of green coffee for export or the national roasting industry.

The foreign party will finance or make available to the business equipment, materials and inputs necessary for the promotion, harvesting and processing of coffee throughout the production chain, as reflected in the table below.

An investment amount of **4.4 million US dollars** is estimated over a period of 5 years.

### Total investments

Supplies and (USD)			Costs (Thousands USD)				
Equipment Needed	Per ha	Per ton	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
NPK	241,5		354,2	344,0	353,5	371,6	393,9
Urea	96,6		141,7	137,6	141,4	148,7	157,6
Pesticides	48,3		70,8	68,8	70,7	74,3	78,8
Industry		154,99	49,6	64,9	89,0	122,6	163,9
Containers		8,86	2,8	3,7	5,1	7,0	9,4
Hinnies		66,43	21,3	27,8	38,2	52,5	70,2
Package T	48,3		70,8	68,8	70,7	74,3	78,8
Subtotal							
Materials &							
Inputs			711,3	715,6	768,6	851,0	952,5
CREE			13,8	13,8	13,8	13,8	13,8
Chainsaws			42,5	42,5	42,5	42,5	42,5
Backpacks			21,3	21,3	21,3	21,3	21,3
Motorcycle							
Backpacks			9,9	9,9	9,9	9,9	9,9
Total							
investments			87,5	87,5	87,5	87,5	87,5
Total Supplies							
& Equipment			798,7	803,1	856,1	938,5	1.040,0

The purpose is for the different business participants in the coffee production chain to have the required materials and inputs, for harvesting and processing the bean, and increase the crop yields.

# Target market of the products

Arabica and Robusta coffee are expected to be marketed and exported, as shown in the table below:

Arabica Coffee	Years						
Alabica Collee	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5		
Hectares	1.130,1	1.077,3	1.114,1	1.178,6	1.261,7		
Yield t/ha	0,17	0,24	0,32	0,44	0,56		
Total Production (t)	189,6	254,8	361,7	513,9	702,3		

Robusta Coffee	Years						
Robusta Conee	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5		
Hectares	336,9	347,4	350,0	360,5	369,7		
Yield t/ha	0,39	0,47	0,61	0,77	0,96		
Total Production	130,3	164,0	212,8	276,9	354,9		

Summary of both	oth Years						
species	YEAR 1 YEAR 2 YEAR 3 YEAR 4 YEAR 5						
Hectares	1467	1425	1464	1539	1631		
Tons	319,9	418,8	574,5	790,8	1057,2		

Of the total coffee produced per year, 62% of the Arabica harvest will be exported; and from the 4th year on, 60% of the Robusta. The rest will be delivered to the domestic market. The table below shows the value of sales at the estimated prices for the above destinations.

Destinations	Years						
Destinations	YEAR1	YEAR 2	YEAR 3	YEAR 4	YEAR 5		
Exports							
(thousands of							
USD)	646,7	869,0	1.345,2	2.101,2	2.841,9		
Arabic (t)	117,6	158,0	224,3	318,6	435,4		
Price USD/t	5.500,0	5.500,0	5.500,0	5.500,0	5.500,0		
Revenue							
(thousands USD)	646,7	869,0	1.233,5	1.752,3	2.394,7		
Robust (t)	0,0	0,0	53,2	166,1	212,9		
Price USD/t	2.100,0	2.100,0	2.100,0	2.100,0	2.100,0		
Revenue							
(thousands USD)	-	-	111,7	348,9	447,2		

Domestic sales (CUP thousands)	57.933,3	77.780,1	110.483,1	156.926,2	214.457,8
Arabic (t)	72,1	96,8	137,5	195,3	266,9
CUP/t price	300.003,4	300.003,4	300.003,4	300.003,4	300.003,4
Revenue (thousand CUP)	21.630,2	29.040,3	41.250,5	58.590,7	80.070,9
Robust (t)	180,3	242,0	343,8	488,3	667,3
CUP/t price	201.401,8	201.401,8	201.401,8	201.401,8	201.401,8
Income (thousand CUP)	36.303,1	48.739,8	69.232,6	98.335,5	134.386,9
Equivalents (thousands of USD)	302,5	406,2	576,9	819,5	1.119,9
Total Revenue (Thousand USD)	482,8	648,2	920,7	1.307,7	1.787,1

# **Contact information:**

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Project "Development of the cultivation and export of the eel Rostrata and its by-products".



#### **Objectives**

To develop the cultivation and export of eel Rostrata and its by-products. Specific objectives:

- To obtain advanced technology for the cultivation of glass eels up to commercial size, according to the phases of the project, with the corresponding transfer of technology and material, technological and economic-financial resources to guarantee production and commercialization.
- To diversify export products, using elvers as the main raw material.
- To benefit the productive activity with the commercialization and use of the mechanisms of promotion of the foreign partner in the international market.

It is conceived as a general project that will be carried out in four stages. It will be developed in an escalated manner over time, to allow the increase of the added value to the product, as shown below:

Stage 1: Fattening of the elver up to 2 - 10 g.

Stage 2: Fattening of elver up to 250 - 300 g.

Stage 3: Production of frozen fillet eel.

Stage 4: Production of eel in Kabayaki assortment.

The production of eel in Cuba benefits from the following factors:

- The possibility of undertaking these productions in an efficient and profitable way;
- The main raw material can be obtained in the domestic market, that is the glass eel as seed in the cultivation process;
- The experience of the technical staff in the development of aquaculture at the Aquaculture Technology Development Company;
- Facilities are available for these purposes, although they require an improvement in construction conditions.

<u>Cuban investor:</u> Sociedad Mercantil "Acuicultura y Pesca", (ACUIPESCA S.A).

#### **Business model:**

An international economic association agreement for the cultivation and export of eel rostrata and its by-products.

The Cuban company will provide to the business the surface and usufruct rights over the land areas and facilities.

The foreign investor would provide the necessary financing for the technological equipment, other equipment and inputs for glass eel fattening and eel production.

The estimated investment amounts to 3.6 million US dollars over a 5-year period, and net sales are estimated to be around 22.7 million US dollars.

The initial investment would be made during the first year of the business,

it includes mainly the construction work for the rebuilding of the

aquaculture facility and the installation of the technology.

Potential Markets:

The business is expected to produce for the international market, since

Cuba does not usually consume these products, which are exported

entirely live or frozen. The Asian market has been identified as the main

market, mainly Japan, considering that it is the largest consumer and

about 97% of world production; also, South Korea and China; although

European countries and Canada are not ruled out.

Eel is a highly coveted food product worldwide due to the uniqueness of

its meat, the benefits attributed to it by different cultures and the rich

variety of gastronomic possibilities it offers from ancient times to the

present day.

There are no related alternative products that compete directly with the

Anguilla rostrata species, or that match the characteristics of the stage

and expected sale weight, as a commercial size, at which the product is

intended to be offered.

The worldwide demand exceeds the supply capacity regarding this

product, both of the glass eel product (as seed), as well as the various assortments of the eel product of commercial size above 250 g (live,

frozen, smoked, kabayaki).

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# **Project "Production and marketing of eggs"**



# **Objectives**

Increase egg production using existing infrastructure to reach a level of 48,900,000 eggs for domestic marketing and export.

Replace outdated technology in the laying hen farm and other facilities.

Ensure a stable supply of animal feed.

Increase the mass of layers by importing fertile eggs or day-old chicks for a better use of the installed capacities.

#### Location

The project is proposed to be developed in a farm with 10 warehouses in the province of Pinar del Río.

This is a modular project that can be replicated in farms in several provinces, with the poultry companies of Artemisa, Mayabeque, Matanzas, Villa Clara,

Cienfuegos, Ciego de Ávila, Camagüey, Holguín, Granma and Santiago de Cuba, with the potential to produce more than 400 million eggs per year.

#### Business model

The intention is to sign an international economic partnership agreement for agricultural production between a foreign company and a Cuban entity from the Food and Poultry Business Group to develop egg production for a period of 10 years. This agreement could be extended.

The Cuban side will make the poultry farms and hatchery available to the business, guarantee the water supply and the workforce to develop production.

The foreign side shall ensure the necessary equipment and technology to repair the poultry farm and its houses, the technological improvement of the hatchery, the importation of fertile eggs or day-old chicks, and the stable supply of animal feed and medicines.

It is also planned to established production chains with the existing feed mills for the supply of animal feed, starting from supplying the import raw materials necessary for their production.

The productive results obtained shall be distributed in accordance with the proportion of the expenses incurred by each party to the contract.

Cuba has historically had stable volumes of egg consumption in the Cuban population. The project aims to boost sales and increase domestic consumption.

Egg production in Cuba is favored by the following factors:

- Existence of productive infrastructure that ensures the development of egg production throughout its chain.
- A Poultry Research Institute with highly qualified personnel and a Genetics and Breeding Stock company that has supported the development of egg production with its own genetics since 1963.

 The consumption of eggs is rooted in the food culture of the Cuban population of more than 11 million inhabitants.

An efficient production of eggs, will contribute to the production for national consumption, since currently there is an unsatisfied demand, and the possibility of export.

#### Investments

The investment needs, have an estimated value of **2,518,600 US dollars.** They are mainly associated with the repair of the houses in the laying farms, hatcheries, introduction of technologies, purchase of transport equipment, among others, and the use of biogas technology by the use of excreta as renewable energies.

Summary of improvements to be made				
	UM: USD Thousands			
Warehouse (99 x 12 mts)	50.0			
Technology	845.0			
Repair of other installations	100.0			
Transportation & Machinery	240.0			
Other	60.0			
Subtotal	1295.0			
Biogas Technology	478.0			
Total Improvements	1773.0			
Initial Working Capital	745.6			
Total Cost of Improvements				

The investment will have a quick recovery, estimated to take about 2 years.

# **Business Projections**

The main projected production indicators are listed below:

Annual egg production: 48,900,000 units

• Conversion x 10 total eggs: 1.36



• Feasibility: 88%

• Eggs x layer x year: 300

· Annual feed consumption: 7900 t

The cost of a ton of feed is considered at 600 USD and the cost of layer chicks at 1.04 USD.

Once the day-old chicks have been imported, the production of eggs will start at the 18th week. The cost of production is estimated at 0.147 USD/unit and it is assumed a maximum egg selling price of 0.25 USD/unit. Revenue in one year is estimated by a profitability margin of 40%.

#### **Contact information:**

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Project "Roofed crops and processing of fruits and vegetables in greenhouses"

#### **Description**

Development of fruit and vegetable crops in greenhouses, as well as construction and operation of a plant to receive and process these and other agricultural products from domestic producers, for wholesale marketing in the country and export to countries in the region.

#### **Investment modality**

Joint Venture or Wholly Foreign-Owned Enterprise

# Estimated investment amount

6 million USD

#### Location:

Mariel Special Development Zone

# **Contact information:**

Wendy Miranda, Director of Coordination and Procedures

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Project "Development and production of fresh vegetables in protected cultivation houses".

#### **Description**

Assembly of new cultivation house facilities in an area of 5 hectares in the first two years, with state-of-the-art technology, to achieve high production yields, in addition to introducing innovative management methods to increase efficiency in the production process, processing and handling of vegetables, including bell pepper, tomato, cucumber and chili bell pepper as key products.

#### Investment modality

Joint venture

Cuban Part

Agroindustriales S.A. (AGROIND S.A.)

**Estimated investment amount** 

5.5 million USD

Location:

Mariel Special Development Zone

**Contact information:** 

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Project "Cultivation of vegetables and vegetables in covered system".

#### **Description**

Install 40 protected crop houses in an area of approximately 21.35 hectares, equipped with modern technology, to produce vegetables such as broccoli, lettuce, bell pepper, cherry tomato, chard, cauliflower, cucumber, among others, with the objective of reaching yields of more than 80 tons/ha. The project includes a seedling house, an automated irrigation and fertilization system, a substrate, sowing and germination house, as well as a processing and packaging center.

#### **Investment modality**

Joint venture

#### Cuban partner:

Empresa Agropecuaria Alquízar

#### **Estimated investment amount**

6 million USD

#### Location:

Mariel Special Development Zone

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# **Project "Production and Marketing of Grains"**

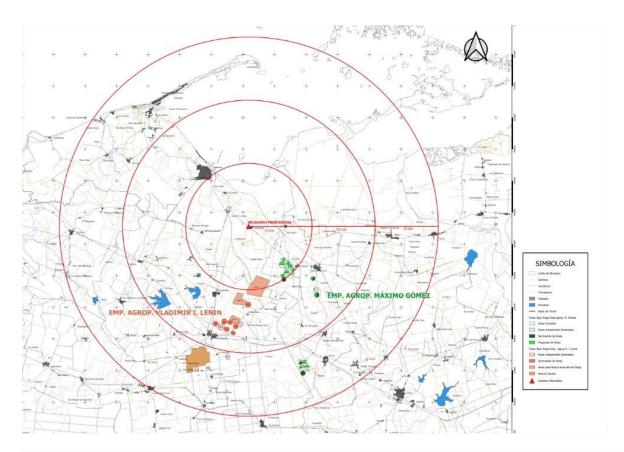


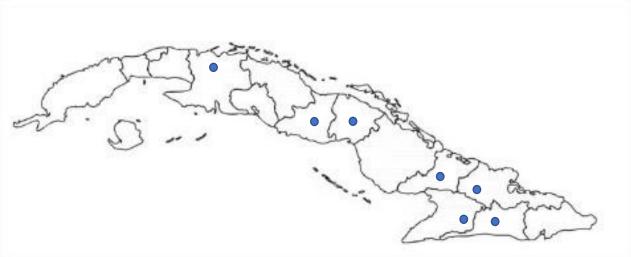
#### **Objectives**

Develop the production of grains (corn and beans), 8 thousand tons of grains for consumption and 1000 tons of seed with yields of 1.3 tons per hectare of beans and 5 tons per hectare of corn, based on the introduction of new planting and harvesting technologies.

# **Location**

The project proposal is located in the Máximo Gómez Agricultural Company in Matanzas Province.





This is a modular project, which can be replicated up to 70 thousand extensive hectares, so it can be developed in several provinces of the country: Matanzas, Sancti Spiritus, Ciego de Ávila, Las Tunas, Holguín, Granma and Santiago.

#### Business model

The intention is to sign an international economic partnership agreement between a foreign entity and a Cuban company from the Agricultural Group to develop grain production for a period of 15 years.

The Cuban side will make land available to the business for the cultivation of grains, guarantee the supply of water and the labor force to develop production, as well as industrial capacities (5 facilities with a total capacity of 280 tons per day).

The foreign party will finance the purchase of fertilizers, pesticides and parts for the agricultural machinery used in this activity.

The productive results obtained will be distributed in accordance with the proportion of contributions and expenses incurred by each party to the contract.

Cuba has a demand of about 900,000 tons of corn per year, of which only about 40,000 tons are currently satisfied, so there is a potential domestic market that is not satisfied.

Grain production in Cuba is favored by the following factors:

- Availability of land for the introduction of extensive planting and harvesting technology.
- There is a Grain Research Institute and 4 territorial stations.

# List of Cuban entities that will be directly linked to the project:

- Máximo Gómez Agricultural Company
- Agroindustrial Company of Grains, Sancti Espíritus
- La Cuba Agricultural Company
- Las Tunas Grain Agroindustrial Company
- Jibara Grains Agroindustrial Company



- Capote Sosa Agroindustrial Grain Company
- Palma Soriano Agroindustrial Grain Company

#### Investments

The investment needs are mainly associated with the acquisition of fertilizers, pesticides and parts for the agricultural machinery used in this activity. For an area of 8,000 hectares and a production of 10,400 tons of grains, the estimated investment cost is around **4,056,000 U.S. dollars.** 

#### **Business Projections**

In a planting area of 8,000 hectares, it is expected to obtain a yield of 1.3 tons per hectare for beans and 5 tons per hectare for corn.

The cost per hectare of cultivation is 390 USD and is associated with the cultivation technology.

Technology Package per Hectare							
Input		Unit	Quantity				
Fertilizers	NPK	ton/ha	2250				
	Urea	ton/ha	450				
Pesticides	Herbicides	ton/ha	32.4				
	Fungicides	ton/ha	7.2				
	Insecticides	ton/ha	48.3				

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## Project "Production and Marketing of Beef and By-products".



# **Objectives**

Produce and market beef, in special cuts and high-quality by-products for the domestic and export markets.

# Location

Ceba Base Business Unit and Aridanes Development, "Las 90 Viviendas" Community, Aracelio Iglesias People's Council, in Yaguajay Municipality, Sancti Spíritus Province.\_Modular project, which can be replicated in all provinces of the country.

# **Business model**

The intention is to sign an international economic partnership contract between a foreign entity and a Cuban company from the Livestock Business Group for a term of 10 years. This agreement could be extended and will ensure the necessary financing to develop the existing potential in the country through investments that are needed and the working capital for the sustainability of the inputs and the increases in quantity and quality of cattle productions.

The Cuban side provides production facilities, land, animals with no genetic value; carries out all the legal and administrative procedures for the importation and commissioning of the equipment and machinery that is agreed by the parties involved, and facilitates markets in the national territory.

The foreign party guarantees financing, the purchase of the necessary supplies, and genetic development.

The Venegas mini-industry will complete equipment to improve the processing of meat and its by-products. For the supply of the animals, it will establish a productive chain with 12 fattening units from UEB Desarrollo and Ceba Aridanes, to complete 2000 animals, that will reach average weights of 420 kg. This model can be replicated in other livestock companies in the country.

The fattening units will be established in three farms below:

- Finca Aridanes with La Cueva and La Iglesia.
- Finca Los Jobos, with grazing 1, grazing 2, grazing 3, grazing 4, grazing 5, grazing 6; The Hehen and Judah.
- Finca Las 14, with grazing 1 and grazing 2.

Beef production in Cuba benefits from the following factors:

- Availability of productive facilities and areas for livestock breeding and animal feed production.
- Possibility of assimilating advanced technology for the production and processing of beef in the country.
- · Qualified personnel in livestock breeding.

 A Research Centre for the Animal Improvement of Tropical Livestock and a Pasture and Forage Research Institute.

This project, will contribute to replace imports and to enhance the possibility of exports.

The project will also achieve food self-sufficiency with 80% of pastures and fodder, as well as 20% of protein plants, with national productions, by-products of agribusiness, local raw materials, in addition to recovering areas infested with marabou and other undesirable plants.

It will install desalination (removal of salt on water) equipment that ensures the supply from existing sources of a better-quality water to 100% of the animals.

It will introduce renewable sources of energy for the generation of electricity, like photovoltaic panels on roofs; and will install solar electric pumps, water containers with windmills and bio-digesters.

It will develop a training program for 100% of the producers and managers, on agricultural technologies and environmentally friendly management, with a theoretical and practical participatory approach with gender inclusion.

# Market analysis.

The production will be sold to the local market, to users established at the Mariel Special Development Zone and to tourist destinations in the country. Exports to countries in Central America and the Caribbean are also planned.

## **Investments**

The main investments will be aimed at the use of the arable area, the removal of marabou trees, the installation of irrigation systems for the production of fodder that should reach 40 t/ha, 15 t/ha in the production of pastures to meet the demands of farming during the draught season, and for hay and silo production.

The project will expand the slaughter capacity up to 12 head per day and increase livestock mass.

The business contemplates the construction of a biogas plant and the acquisition of machinery and equipment for the removal of marabou and for agricultural activities, feeders and water containers, weighing and lighting devices, and technologies for the slaughterhouses and processing facilities.

Financing by the foreign investor is estimated at **1,262,037 USD**. Investments will be carried out progressively over 2 years.

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Project "Development of mariculture in the province of Cienfuegos".



#### **Objectives**

The production and distribution of fresh fish (Cobia and Red Tilapia), in the domestic market and in the Caribbean.

To achieve this objective, it is necessary to have access to raw materials, means and equipment, which are essential for the development of mariculture.

<u>Cuban Investor:</u> Sociedad Mercantil "Acuicultura y Pesca", (ACUIPESCA S.A).

#### **Business model:**

An international economic association agreement for the development of mariculture in the province of Cienfuegos.

The Cuban company will provide the rights to use marine waters and the facilities necessary for the project, as well as resources to sustain the activity.

The foreign investor would provide the necessary financing for the

acquisition of inputs, means and equipment, as well as the export markets.

The project will have a production capacity of 278.3 tons per year. To this

end, 19 cages will be acquired to grow around 3,600 fry in each one. They

will reach a weight of around 3 kg at the end of the seven-month cycle in the case of cobia and 400 g in the case of red tilapia at the end of the 9 months

cycle. The survival rate at the end of the production cycle will be of 75% in

the case of cobia and 80% in red tilapia.

The estimated investment amounts to US\$4.1 million and sales are

estimated to be around 28 million US dollars during the proposed 10-year

term of the business.

Potential Markets:

It is anticipated that 56% of the business's production will be exported and

the rest will be for the domestic market, mainly for tourism. The demand for

seafood products in Cuba's hotels is high.

Asia, Europe and Canada have been identified as export markets.

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# Project "Production, Industrialization and Commercialization of Dairy Products."



## **Objectives**

Develop milk production in an area of 460 ha, based on the introduction of livestock inputs that allow the food base for the development of 720 animals that achieve yields of more than 10 liters per cow.

# Location

Venegas Livestock Company, Santos Caraballé Base Business Unit, Aracelio Iglesias People's Council, in Yaguajay Municipality, Santi Spíritus Province.

Modular project, which can be replicated in the same location to complete 22 typical dairy farms in the Venegas milk producing region and be replicated in other livestock companies.

#### Business model

The intention is to sign an international economic association agreement between a foreign entity and a Cuban company from the Livestock Business Group, to develop the production and industrialization of milk and its byproducts for a term of 7 years. The agreement could be extended.

The Cuban side will make milk producing regions available to the business. There are livestock infrastructures known as typical dairy farms, associated with land areas for the development of pastures, fodder and protein plants.

The Cuban side will facilitate the supply of water with existing sources that require evaluating the increase of supply capacities with the use of renewable energy.

In addition, it will provide the workforce to develop livestock production.

The foreign party will finance the acquisition of inputs for livestock, mainly herbicides, barbed wire, anti-tick products, urea and anti-parasite products, as well as some necessary technology.

The productive results obtained will be distributed in accordance with the proportion of contributions and expenses incurred by each party to the contract.

Cuba has a demand for more than 1.2 billion liters of milk and 350 million liters are delivered to the industry, so there is an unsatisfied domestic market.

Milk production in Cuba is favored by the following factors:

- Existence of livestock infrastructures.
- Existence of hydraulic infrastructure that ensures water supply.
- Availability of land for planting animal feed. Studies of regionalization of pastures and forages have been carried out.
- · Access to reproductive technologies.

- Skilled workforce.
- Existence of a state sector, cooperatives and/or individual producers, with knowledge to adopt and mobilize the most appropriate resources in livestock production management models.
- There are two Science and Innovation Research Institutes and 6 territorial stations.

#### Market analysis.

Production will be sold to the local market and tourist destinations in the region, to users established in the Mariel Special Development Zone and will be exported to countries in Central America and the Caribbean.

#### Cuban companies and entities involved

Venegas Livestock Company.

#### Investments

The investments are mainly related to the acquisition of inputs, technologies and renewable energy sources. They are estimated at around **3,867,336 US** dollars.

Hormonal herbicides, barbed wire, anti-tick products, urea, anti-parasites, fertilizers, solar electric pumps, feeders, water containers with windmills, lighting system, scales, photovoltaic panels on roofs, bio-digesters, installation of motor pumps with solar panels, irrigation systems, genetic material and mechanized milking systems.

**Investment Schedule:** It is proposed to carry out the required investments and imports in two years, in order to guarantee the start-up in the third year. This investment is expected to be recovered in three years.

# **Business Projections**

Increase the production from 6.1 liters of milk per cow to 10 liters of milk per cow.

Combine in-depth agronomic work to make the own production of food, with the use of food balance techniques.

Adequate management of the workforce from the efficient zootechnical-reproductive-veterinary management.

Obtain concentrated feeds to supplement herd diets.

Produce one million 800 thousand liters of milk per year in a sustainable way, with the production of 2420 liters of milk/ha/year, incorporating females to reproduction with the age of 18 – 22 months for a 1st calving at 30-32 months with 480-500 kg of live weight.

Achieve competitive costs per liter of milk below 0.40 USD.

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## Project "Pasta production".



## **Description:**

Construction and operation of a factory for the production of various short and long pastas, lasagna sheets and cannelloni, for the tourism industry and chain stores.

#### **Investment modality:**

Joint Venture or Wholly Foreign-Owned Enterprise

## **Estimated Investment Amount:**

8 million of US dollars

## Location:

Sector A. Mariel Special Development Zone.

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# Project "Production and marketing of poultry"



# **Objectives**

Develop the production of 2,600 tons of poultry, based on the introduction of technologies for the improvement of the productive infrastructure linked to the production of chicken meat and processed meat, establishing production chains with existing poultry facilities.

## Location

This is a project located in poultry facilities in the municipalities of Consolación del Sur and Candelaria in the Pinar del Rio province; and in the municipalities of Güira de Melena and Artemisa, in the Artemisa Province.

The poultry project can be located in other provinces of the country, adjusting the business model to the productive scope desired by the foreign investor and according to the conditions of the existing poultry infrastructure in the territory.

#### **Business model**

The intention is to sign an international economic partnership agreement between a foreign entity and a commercial company belonging to the Food and Poultry Business Group, to develop poultry production for a period of 10 years. The agreement could be extended.

The Cuban side will make 5 farms available to the business, where the water supply and the labor force to develop production will be guaranteed.

The foreign party will finance controlled environment equipment and technology, the rebuilding of poultry farms, hatchery and slaughterhouse with associated equipment; as well as the supply of feed or raw materials for the manufacture of feed and day-old chicks.

The productive results obtained will be distributed in accordance with the proportion of contributions and expenses incurred by each party to the contract.

Cuba has a demand that exceeds 300,000 tons of poultry per year. All domestic consumption is imported, so there is an unsatisfied domestic potential market that may exceed this figure.

Chicken production in Cuba benefits from the following factors:

- Availability of land areas for the construction and/or remodeling of modern farms.
- Possibility of assimilating advanced technology for the production of poultry in the country.
- Existence of qualified personnel in chicken breeding.
- A Research Institute with two experimental stations and a Genetics and Breeding Company.
- An efficient production of poultry, will contribute to the effective substitution of imports and the possibility of export.

#### <u>List of Cuban entities that will be directly linked to the project.</u>

- Sociedad Mercantil AVIALAS S.A.
- Pinar del Río Poultry Company with 3 farms
- Artemisa Poultry Company with 2 farms

#### Investments

The investment needs are mainly associated with the improvement of equipment and technology, the repairing of poultry farms, hatchery and slaughterhouse and the supply of equipment for a production of 2,600 tons. It is estimated to cost **2,278,000 U.S. dollars**. The main concepts are detailed below:

Indicators	Value (thousands of US dollars)		
Fattening farms	938.2		
Hatchery	460.0		
Slaughterhouse	500.0		
Conveyor Equipment	320.0		
Contingencies and other	60.0		
Total cost of investments	2,278.2		

It is necessary to invest to improve fattening farms nets, gallon drinkers, lunch boxes, heaters, feeder and drinker system, curtains, fans and silos, hydraulic networks, roads and perimeter fences. Also, in the acquisition of incubators and hatchers, specialized transport equipment and the partial repair of the building. In the slaughterhouse, it is necessary to repair a cold chamber and other minimal investments.

Solar panels can be placed on the roof of all facilities for clean energy, as well as the use of biomass, a renewable source of energy.

#### **Business Projections**

The main projected production indicators:

Annual meat production: 2.6 thousand tons

Parenting cycles/year: 6.0

• Feasibility: 92%

Slaughterhouse utilization: 78%

Premium incubation: 83%

· Annual feed consumption: 5 600 t

The cost of a ton of feed was estimated at 700 USD and the cost of fattening chicks at 0.45 USD.

By improving the existing facilities, expected yields can be achieved in 5 farms, reaching 3,368 tons of live weight for a total of 2,600 tons of slaughtered poultry per year.

The cost of production is calculated at 2054.6 USD/t and a maximum selling price for meat is assumed at 2600 USD/t. Sales valued at **US \$6,800,000** are projected in a year, with an estimated profitability margin of 20%.

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# Project "Rice production and marketing"



# **Objective**

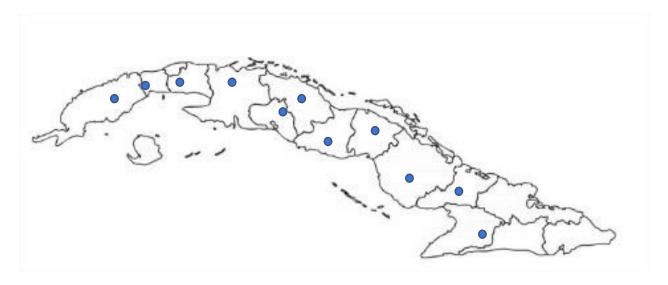
Develop rice production in an area of 8 thousand hectares, through the introduction of fertilizers, pesticides and parts for agricultural and industrial machinery used in this activity.

# **Location**

The project proposal is located in the Sur Del Jíbaro Agroindustrial Grain Company in the Sancti Spíritus province.



The project can be replicated in 10 other locations throughout the country.



This is a modular project, which can be replicated up to 150 thousand hectares, so it can be developed in several provinces of the country, such as Pinar del Río, Artemisa, Mayabeque, Matanzas, Cienfuegos, Villa Clara, Ciego de Ávila, Camagüey, Las Tunas and Granma

# Business model

The intention is to sign an international economic association agreement between a foreign entity and a Cuban company belonging to the Agricultural

Group for a period of 5 years (7 harvests) to develop rice production. The contract could be extended for up to 20 years.

The Cuban side will make the areas for rice cultivation available to the business, guarantee the supply of water and the workforce to develop production.

The foreign party will finance the acquisition of fertilizers, pesticides and the agricultural and industrial machinery used in this activity, as well as its parts.

The productive results obtained will be distributed in correspondence with the proportion of contributions and expenses incurred by each party to the contract.

Cuba has a demand for around 700 thousand tons of rice per year, of which only around 76 thousand tons are currently satisfied, so there is an unsatisfied potential internal market; as well as demands of quality rice for foreign tourism.

Rice production in Cuba is favored by the following factors:

- Existence of hydraulic infrastructure in rice-growing areas that ensures water supply.
- Availability of land for the introduction of extensive planting and harvesting technology.
- Access to technology for rice seed production and mechanized transplantation.
- Existence of industrial infrastructure for processing 300 thousand tons of rice.
- There is a Grain Research Institute and 4 territorial stations, as well as a national germplasm bank with 2,596 varieties from 42 countries.

## Cuban entities involved

List of Cuban entities that will be directly linked to the project.



- Los Palacios Grain Agroindustrial Company
- José Martí Agroindustrial Grain Company
- Mayabeque Grain Agroindustrial Company
- Matanzas Grain Agroindustrial Company
- Aguada Grain Agroindustrial Company
- Ruta Invasora Agroindustrial Grain Company
- Emilio Córdova Agroindustrial Grain Company
- South Jibaro Grain Agroindustrial Company
- Fernando Echenique Agroindustrial Grain Company

#### Investments

Investment needs are fundamentally associated with the acquisition of fertilizers, pesticides and the agricultural and industrial machinery used in this activity, as well as its parts. For an area of 8 thousand hectares and a production of 38 thousand 400 tons of wet rice, equivalent to 19 thousand 200 tons of rice consumption. The investment cost is estimated at **7 million 500 thousand US dollars**. The main concepts are detailed below:

Indicators	Value (thousands of US dollars)			
Fertilizers (3,953 tons)	3,768.96			
Pesticides (96 tons)	1,192.00			
Parts and pieces (Machinery and Industry)	1,977.60			
Seed (1200 tons)	540.00			
TOTAL	7,478.56			

Investments are fundamentally associated with the working capital necessary for the annual acquisition of inputs required for production (fertilizers, pesticides and herbicides required for each campaign).

Likewise, a level of equipment, parts and aggregates are required for agricultural machinery, shelling mills and dryers.

The rest of the investment in machinery and industry are carried out as part of the contribution from the Cuban side.

## Business projections

In a planting area of 8 thousand hectares, it is expected to obtain a yield of 4.8 tons per hectare, which represents a production of wet rice of 38 thousand 400 tons and consumption rice of 19 thousand 200 tons.

Taking as a reference a conservative price of rice in the international market of 550 US dollars per ton, the value of the production will be around 10 million 560 thousand dollars.

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Project "Production and Marketing of Sheep Meat and By Products."



# **Objectives**

To produce 150 tons of sheep meat and by-products, for the domestic market and for export, taking advantage of the installed productive infrastructure of the Small Livestock Enterprise (EGAME) and the scientific and technological results achieved to increase productivity, quality, safety and competitiveness.

# **Location**

In areas of the Small Livestock Enterprise (EGAME), in the Bauta municipality, Artemisa province. This is a modular project that can be replicated in all provinces of the country.

#### **Business Model**

The intention is to sign an international economic association agreement between a foreign entity and a Cuban company from the Grupo Empresarial Ganadero for a 4-year term, which will ensure the necessary financing to develop the country's existing potential, investments and working capital for the sustainability of inputs and increases in the quantity and quality of sheep production.

The Cuban side will make available to the business, livestock infrastructures with strong constructive works known as typical cowsheds, associated with areas for the development of pastures, fodder and protein plants.

It will also guarantee the labor force to develop livestock production, and water supply from existing sources. Supply capacities can be increased with the use of renewable energy.

The foreign party will finance the acquisition of livestock inputs, technology and equipment.

The productive results obtained will be distributed in accordance with the proportion of contributions and expenses incurred by each party to the contract.

The project focuses on taking advantage of potential areas in the country to turn them into an excellent business opportunity, with high profitability and attractive results in terms of margins per hectare, sheep meat production, using the advantages of sheep as a species compared to other livestock alternatives. It will also take advantage of the high demand for this meat due to its value as a fine dish in the domestic and international markets.

Livestock infrastructures are in areas where agro-ecological techniques are applied to provide many benefits to the sustainability of ecosystems which require investments in pastures, forages and protein plants of high nutritional value for rational grazing. This, combined with a minimum of concentrated feed, are part of the nutritional requirements of the animals. All the above to

achieve sheep breeding in correspondence with the protection of the environment mitigating negative impacts that can be generated.

Sheep meat production in Cuba benefits from the following factors:

- Availability of productive facilities and areas for raising sheep and growing animal feed.
- Possibility of assimilating advanced technology for the production and processing of sheep meat in the country.
- Existence of qualified personnel for raising small livestock.
- A Research Center for the Improvement of Tropical Livestock and a Pasture and Forage Research Institute.
- This project, with efficient sheep meat production, will contribute to the effective of imports and the possibility of exporting.

It is intended to grow, in a short time, 4000 sheep breeders, a replicable model, with the purpose of obtaining 150 t of meat annually, ensuring the technological flow of the entire value chain (Production, Transformation, Marketing and Distribution).

# The project anticipates:

To achieve at competitive prices the growth of sales of livestock of recognized sheep breeds to producers, in order to achieve good meat yields from the chain.

To take advantage of existing markets to export meat, its by-products, making use of foreign marketing channels.

The implementation of the project in terms of infrastructure and available land is planned in:

- Eight (8) centers with capacity between 250 and 500 breeders each.
- Feedlot with capacity for 12,900 animals, in fattening cycles per year.

Center for slaughter and processing.

Breeder replacements will be carried out within the centers themselves with improvements and rotation of the stallions. It will be necessary to import live animals, semen and embryos of outstanding breeds, for genetic refreshment and to achieve an increase in meat yields by combining the best characteristics of genetic lines.

Minimal inputs are required in terms of antiparasitics, vitamins, antibiotics and feed. The demand for water is assured.

Photovoltaic solar panels will be installed on the roof of the units to ensure that the project generates its own electricity using clean technologies and renewable sources. In addition, ponds and cisterns are planned to collect rainwater, through channels to recirculate it and use it for the controlled environment. Protein bushes for animal feed will also be planted.

#### Market analysis.

The production can be sold in the local market, to the national store network, to users of the Mariel Special Development Zone, and to tourist destinations in the country. Exports to various international markets are also planned.

The consumption of sheep meat and its by-products worldwide shows an increase due to consumption habits and culinary education. Countries that are high importers, such as Canada, Saudi Arabia and several Asian countries, among others, are identified as possible export markets.

In Cuba, consumption is high and production does not meet the demand of the population, tourism and other market segments, so more than 300 tons are annually imported.

#### **Investments**

Financing resources to be procured and managed by the foreign investor, are estimated at **6.8 million US dollars**. These resources could be provided gradually, year by year, as shown below:

CONCEPT	TOTAL	Year 1	Year 2	Year 3	Year 4
Currency Denomination	MUSD	MUSD	MUSD	MUSD	MUSD
Fixed Investment	4.721,10	1.254,45	786,20	1.057,75	1.622,65
Real Rights	1.499,40	264,60	264,60	352,80	617,40
Civil Construction & Assembly	1.950,00	410,00	352,50	400,00	787,50
Irrigation system	487,10	270,40	20,40	150,50	45,85
Insemination	1,25	0,25	0,25	0,25	0,50
Slaughterhouse Equipment	124,00	62,00	0,00	0,00	62,00
Laboratory Equipment	50,40	8,40	8,40	12,00	21,60
Non-Technological Equipment (Implements)	108,00	48,00	23,05	35,20	1,80
Transportation Equipment	468,90	168,00	116,70	98,20	86,00
Computer and communication equipment	29,75	21,35	0,00	8,40	0,00
Office Furniture	2,30	1,50	0,35	0,45	0,00
Previous Expenses	2.068,80	1.560,05	229,10	279,65	0,00
Fixed capital	6.789,85	2.814,55	1.015,30	1.337,40	1.622,65
Initial Working Capital		92,20			
Total Investment Cost	6.882,05	2.906,70	1.015,30	1.337,40	1.622,65

Investments have been planned in stages in order to facilitate their financing, with the possibility of funding new investments with the income received by the business partners.

## **Contact information:**

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Project "Modernization of a sugar mill, including the production of cane and by-products".



There are 16 projects of this type in the Foreign Investment Opportunities Portfolio.

## Objective:

To rehabilitate and modernize the mill's equipment and by-products plants, to increase production levels and the overall efficiency of the process, including sugarcane production.

Replace the energy base, to move from a current generation rate of 37 kWh per ton of cane to one of more than 110 kWh per ton of cane.

Ensure harvesting and transportation equipment for sugarcane.

Rehabilitate, modernize and increase the number of agricultural machinery and cane irrigation systems to increase agricultural yields and plantation development.

Foreign Investment Modality: Joint Venture

Cuban partner: ZERUS S.A.

**Estimated investment amount:** 

• 40 million US dollars for a sugar mill with a capacity of 4,600 tons of cane

per day, 45,000 tons of sugar annually.

• 60 to 100 million US dollars for a sugar mill with a capacity of 7 thousand

tons of cane per day, 90 thousand tons of sugar annually.

80 to 110 million US dollars for a sugar mill with a capacity of 9 thousand

tons of cane per day, 150 thousand tons of sugar annually.

Recovery time of the investment: From 7 to 8 years.

Project validity: 25 to 30 years

Advantages for investors:

Opportunity to obtain income from the first day of its business

establishment, since it is a factory that currently produces sugar and by-

products.

• The necessary investments are expected to be made over a period of 6

to 7 years, making it easier for the cash flow to be positive, taking into

account the income from exporting sugar and by-products.

• The loan repayment guarantees will be based on the export of the sugar

produced and by-products developed.

• The shareholding percentages will be negotiated by both parties.

This business has very favorable economic and financial indicators.

Contact information:

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