

Technical and Economic Feasibility Form Production Projects (Industrial - Agricultural)

1 Project: Investment in the field of cold chain

2. Project Presentation: Establishment of a sorting, packaging, and storage unit at a temperature above zero degrees Celsius for agricultural products, including fruits and greenhouse vegetables.

3. Description of the Project:

a. Necessity of the Project:

The value chain in the agricultural sector includes production, processing (value addition), packaging, and sales. It refers to a series of operations that are carried out in a chain-like manner and result in value creation in the final product. Considering that most agricultural products naturally perish over time, causing losses to farmers, attracting investment in the cold chain sector becomes one of the most important tasks. In the cold chain process, after harvesting the product, opportunities for processing, packaging, sales, and exports are provided, which contribute to financial resources in the agricultural sector.

b. Mainland Privileges (Raw Material – Market):

Significant production of orchard and greenhouse products in the Aras region and the ability to meet the demand for high-quality processed products in domestic and international markets.

c. Market Potentials:

Given the presence of fertile plains in the Aras Free Zone and the presence of numerous greenhouses, efforts towards processing agricultural products, considering the increased shelf life and market demand, can lead to proper marketing and sales of the products both in domestic and international markets. d. Added Value:

Creating significant value-added in processed and packaged agricultural products with high shelf life is crucial.

4. Market Feasibility; Economic - Financial:

a. Annual Demand for the Product (Domestic – Countries of the Region – World Demand):

There is a suitable demand for processed agricultural products in Iran, the regional countries, and the world, considering the favorable market acceptance and extended shelf life of these products.

- b. Raw Materials Provision Potential (Domestic Countries of the Region): The necessary raw materials for establishing an investment unit in the cold chain sector are primarily available domestically, but investors can also source raw materials from abroad if needed.
- c. Local and Regional Markets:

Domestic market, Persian Gulf region countries, CIS countries, and European countries.

5. FS Components:

a. Fixed Capital: 1,620,000,000,000 rials Working Capital: 380,000,000,000 rials

b. PBP: 4 years

C. IRR: 29

d. Land Area: 10,000 square meters Built-up Area: 8,000 square meters

e. Direct Employment:

50 people

6. Technical Specs:

a. Table of Raw Materials and Estimated Consumption:

Various stone fruits: 4,000 tons Various seeded fruits: 2,000 tons

Various greenhouse vegetables: 6,000 tons

b. Table of Products and Estimated Production:

Sorting, packaging, and storage of agricultural products, including orchard fruits and greenhouse vegetables, at temperatures above zero degrees Celsius, with a capacity of 12,000 tons.

c. Table of Machinery and Production Line Equipment

Sorting machine

Washing machine

Brushing and polishing machine

Cold storage equipment above zero degrees Celsius.

d. Schematic Diagram of the Production Process:

Orchard fruits and greenhouse vegetables - Sorting - Washing - Brushing and waxing - Packaging - Storage in cold storage above zero degrees Celsius - Sales.

e: Table of Energy and Labor Costs

Cost: 45810 million Rials	
Energy:	6898 million Rials
Work force:	8950 million Rials

7. Risks of the Project:

a. Existing Risks in case of Losing Potential Market:

Exchange rate risk - Inflation risk - Liquidity risk - Business risk

b. Risk of Rising Raw Material Price:

In case of an increase in the exchange rate, the cost of imported raw materials also increases, which affects the total cost of the product.

c. Retention Risk:

Mandatory occupational health and safety management - Organizational risk management on performance - Training of human resources and personnel for risk awareness to reduce the probability of harm.

d. Risk of Currency Fluctuations and Inflation:

Financial provision based on national currency - Alignment of debts or assets based on a unified currency - Presentation of financial reports and statements in currency (without conversion) - Presence in the market for derivative contracts - Execution of compensatory transactions - Contracting for the purchase and sale of products in the national currency.