

Islamic Republic of Iran
Organization for investment economic and technical assistance of Iran

"Summary of technical-economical prefeasible study"

The name:

Industrial milk powder production

Sector: Agriculture sub-sector: food industry ISIC code: 1520412725

The owner of:

General Department of Economic Affairs and Finance of Kermanshah
Province

Counselor plan:

Razi University

The ADDRESS:

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**Manager of Iran Investment Opportunities
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1- Abstract:

PROJECT PROFILE - SUMMARY SHEET

Project Introduction	
1- Project title: Industrial milk powder production	
2- Sector :Agriculture	sub-sector: food industry
2- Products / Services: This plan includes the production of industrial milk powder and the production of cream as a by-product; The amount of milk powder and cream production is considered equal to 25000 tons.	
4- location (address): zagros industrial estate in Kermanshah province Free zone <input type="checkbox"/> Economic special zone <input type="checkbox"/> Industrial Estate <input type="checkbox"/> Main Land <input type="checkbox"/>	
5- Project description: To produce industrial powdered milk in Zagros industrial town, an area of 7000 square meters and a construction infrastructure of over 3000 meters are needed; The total fixed investment in the plan was calculated as 1,379,267.4 million Rial. The annual production capacity of the project is 25,000 tons of milk powder and 25,000 tons of cream as a by-product of fresh milk fat removal.	

Project Status	
6- Local / internal raw material access : 100%	
7- Sale : 46,750,000,000,000 rial - Anticipated local market : 60% - Anticipated export market :40%	
8 – Project total time (from start of activities to start of commercial operation in years) : 2 years	
Schedule	Start of activities : 2024 Start of works at site: 2025 End of Works :2026 Start of commercial operation : 2026-2027

9- Project status :

- Feasibility study available? Yes* No
- Required land provided? Yes No*
- Legal permissions (establishment license, foreign currency quota, environment, etc) taken? Yes No *
- Partnership agreement concluding with local /foreign investor? Yes No*
- Financing agreement concluding? Yes No*
- Agreement with local /foreign contractor(s) concluding? Yes No*
- Infrastructural utilities (electricity water supply, telecommunication, fuel, road, etc) procured? Yes No *
- List of know- how, machinery, equipment, as well as seller /builder companies defined? Yes* No
- Purchases agreement machinery, equipment and know-how concluded? Yes No*

Financial Table**10- Financial structure :**

Descriptions	Local Currency Required			Foreign Currency Required Million Euro	Total Million Euro
	Million Rial	Rate	Equivalent in Million Euro		
Fix Capital	1,379,267.4	700000	1.97		1.97
Current Capital	7,352,173.12	700000	10.50		10.50
Total Investment	8,731,440.52	700000	12.47		12.47

- Value of foreign equipment / machinery0..... Million Euro
- Value of local equipment / machinery0.62..... Million Euro
- Value of foreign technical know-how.....0..... Million Euro
- Value of local technical know-how.....0.094..... Million Euro
- Net present value (NPV):23.87..... Million Euro
- Internal Rate of Return (IRR): ...146.26..... %
- Capital Rate of Return: ...81.45.... %
- Payback Period 2 years and 9 months

General Information11 - Project type: Establishment ☒Expansion and completion ☐**12- Company Profile**

- Name (Legal/Natural persons): Agricultural Jihad Organization of Kermanshah
- Company's current activities
- Address: Keshavarz Blvd, Sepah Sqr, Kermanshah
- Tel: +988331520000 Fax: +988331521081
- E-mail: Ece-kermanshah@agri_jahad.ir Web Site: kermanshah.maj.ir
- Company's legal structure:
- Government ☒ Non-Governmental ☐ Public non-governmental ☐

3- Project's location:

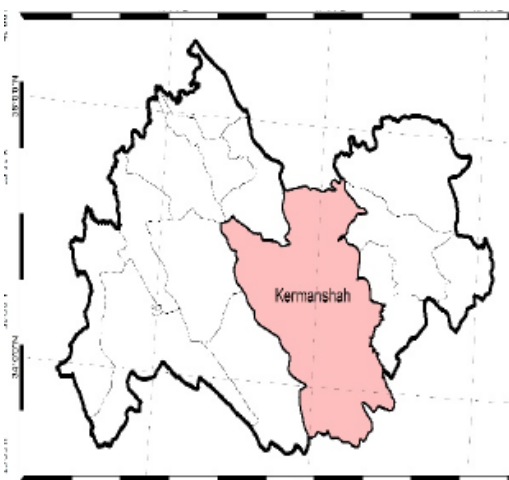
2-1- Province:

Kermanshah province, with an area of 24,640 square kilometers, is the 17th largest province in Iran. Kermanshah province covers 1.5% of the country's area, it is one of the western provinces that share a border with Iraq. Kermanshah province has 2 million people living in 14 cities, 31 districts, 32 cities, 86 villages and 2,595 villages, and 2.4% of the country's population lives in this province, of which 75% live in urban areas and 25% They live in rural areas. There are more than 950 thousand hectares of agricultural land in Kermanshah province, where 4 million 575 thousand 814 tons of crops, horticulture, livestock, fishery and aquatic products are produced in the province every year, and about 125 thousand farmers are engaged in the agricultural sector out of the total population of the province. are active Having 11 climates, twice the rainfall compared to the national average, having four seasons and producing more than 98% of crops and garden crops in the province are among the capacities and potentials of the agricultural sector of Kermanshah province.



2-2- the County:

Kermanshah city is one of the cities of Kermanshah province of Iran. The center of this city is Kermanshah city, which is also the capital of Kermanshah province. The population of this city in 2015 was equal to 1,083,833 people. Kermanshah city from the north with Kurdistan province and Ravansar city; It is adjacent to Dalaho city and Islamabad city in the west, Ilam province in the south, Sahne city and Harsin city in the east, Sangar and Keliyai city in the northeast. The city has a long history in terms of handicrafts such as knife making, metalworking and making musical instruments and agricultural tools, rugs, giweh moj (night tent) and baskets, so that these industries are exported abroad with little changes.



2-3- the project:

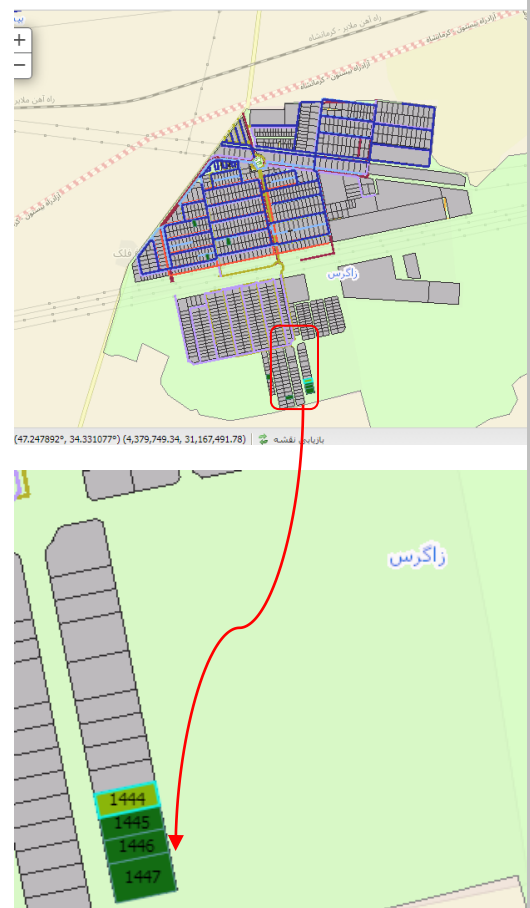
The location of this project is in Zagros industrial town;

Zagros industrial town located in Kermanshah province has latitude 34.3185730 and longitude 47.2686424. Currently, there are water, electricity and gas infrastructures in Zagros industrial town. In terms of access to transportation, this town is located in a relatively convenient location. Zagros

industrial town is the largest industrial town in the west of the country and this town has an area of more than a thousand hectares.

Remin that can be assigned, which is in accordance with the proposed plan, is proposed in the section of food, pharmaceutical and health products (Block 22).

According to the table below, access to the infrastructure is available and the facilities of the industrial town are at the disposal of the units; Also, the land does not need to spend heavy expenses on leveling.



2-4-access to the infrastructures:

No.	Needed infrastructures	distance to the project	The supply infrastructures
1	water	0	Industrial Estate
2	electricity	0	Industrial Estate
3	gas	0	Industrial Estate
4	Telecommunications	0	Industrial Estate
5	High way	3/4 km	Biston Highway
6	Sub way	0	Industrial Estate
7	airport	15/5 km	Shahid Ashrafi Airport
8	port	-	-
9	Rail way	16/7 km	Kermanshah Railway
10			

4- Technical Specifications of plan:

3-1 –product:

Milk powder, which is also called industrial milk powder, is a dairy product that is obtained by evaporating milk until drying. One of the purposes of drying milk is to preserve it. Powdered milk has a much longer shelf life than liquid milk and does not need to be stored in the refrigerator due to low humidity. Another goal is to reduce its volume for the economy of transportation. Milk powder and dairy products include such things as whole milk powder, nonfat (fat-free) milk powder, buttermilk powder, whey powder products, and dairy powder mixes. Many exported dairy products meet the standards set out in the Codex Alimentarius. Milk powder is used for food as an additive, for health (nutrition) and also in biotechnology (saturating agent); In fact, milk powder is a dry dairy product that is prepared by evaporating milk to remove its water. The purpose of dry milk production is to increase the shelf life of milk without the need for refrigeration. Whole milk powder, fat-free milk powder, dairy whitener and different types of milk powder are available. Because of its nutritional benefits, it is commonly consumed around the world and is used in infant



formula, confectionery, baked goods and savory dishes.

Baby formula is different from industrial formula and is structurally close to human milk and does not contain lactose. Industrial powdered milk cannot be used for babies.

3-2-project's requirements:

3-2-1-Space and infrastructure required:

To produce industrial milk powder in Zagros industrial estate, an area of 7000 square meters and a construction infrastructure of over 3000 meters are needed. The specifications of the land, main buildings and other required side buildings and investment in them are as described in the table below.

Table 2: Plan investment in land, landscaping and building

	Description/name of inventions	Description	Investment required for the plan		Total cost (million euros)
			Required quantity/meter age	The price of the purchase/construction unit (in euros)	
1	land	zagros Industrial Estate	7000	17.14285714	0.12
2	Landscaping operations		7000	7.142857143	0.05
3	Construction	Construction of 6 production and storage sheds (height 6 meters with internal storage)	3000	171.4285714	0.514
		Administrative building and central management	200	214.2857143	0.042
		Labor and support building	200	85.71428571	0.017

	(dressing room and prayer room, restaurant and toilet)			
	Laboratory	100	185.7142857	0.004
	guard building	20	185.7142857	0.0037
	Green space (10% of the land area)	700	3.571428571	0.025
	Pavement, sidewalk, parking lot and asphalt (20% of land area)	1400	42.85714286	0.06
Total		–	–	0.8372

3-2-2-Equipment and machinery:

Industrial milk powder production equipment and machines have been considered. The amount of dry milk production is considered equal to 25 thousand tons.

Table4- Required machinery and equipment

Device name	Description	Price (million Rial)
Spray dryer	Spray milk drying machine	264600
Pasteurizer	Pasteurizing device for milk disinfection	37800
Packaging machines		75600
Milk storage tanks	Stainless steel tanks for storing raw milk	15120
Pumps and piping	Liquid and milk transfer equipment	56700
Automation and control	Production control and monitoring system	22680
Installation	Ten percent of the total equipment cost	39750
total	Capacity of 25 thousand tons	512,250

3-2-3- Raw material and intermediate components:

Based on the type of product and the variety of packaging, raw material are generally predicted as follows:

Table 5: Cost of raw material for product

No.	The name of the raw material	Annual consumption after completion (tons)	Unit cost (Rial)	Total cost (million Rial)
1	fresh cow's milk	250,000	150,000,000	37,500,000
2	Double laminated envelope	25	1,000,000,000	25,000
3	Additives	500	2,700,000,000	1,350,000
4	Material waste	2%	150,000,000	927,500
total				39,652,500

3-2-4-management and human resources:

For the production of industrial powdered milk, 63 people will be needed in the production, management and support department as described in the following table:

Table6-Estimating the cost of manpower

No.	job title	Number	work area	Monthly salary	The total salary of personnel in a month	Annual salary
1	CEO	1	Management	320,000,000	437,333,333	5,248,000,000
2	production manager	2	production	250,000,000	683,333,333	8,200,000,000
3	Engineers and technicians	7	production	220,000,000	2,104,666,667	25,256,000,000
4	Production workers	22	production	120,000,000	3,608,000,000	43,296,000,000
5	Service workers	7	other	120,000,000	1,148,000,000	13,776,000,000
6	Administrative and sales staff	6	sale	160,000,000	1,312,000,000	15,744,000,000
7	Administrative manager	1	Administrative-financial	220,000,000	300,666,667	3,608,000,000
8	Financial manager	1	Administrative-financial	220,000,000	300,666,667	3,608,000,000
9	sales manager	1	sale	220,000,000	300,666,667	3,608,000,000
10	Forklift driver	1	other	200,000,000	273,333,333	3,280,000,000
11	ISu driver	1	other	200,000,000	273,333,333	3,280,000,000
12	van driver	10	other	170,000,000	2,323,333,333	27,880,000,000
13	Ten-wheel tanker driver	3	other	240,000,000	984,000,000	11,808,000,000
total		63		2,660,000,000	14,049,333,333	168,592,000,000

*The reason for the difference between the monthly salary column and the total salary column for employees in a month is the addition of benefits, holidays, and bonuses (equivalent to 13.66% of the salary) and the employer's

share of insurance premiums (equivalent to 23%), meaning that a total of 36.66% is added to the salary.

No.	Skill level	number	Salaries (wages) (Rial)
1	expert	6	440000000
2	skilled	13	330000000
3	non-skilled	44	2255000000

- Number of skilled personnel required: 13
- number of non- skilled personnel required: 44
- number of expert personnel required 6

5- Ownership and legal permission:

4-1- ownership of land:

It is a suitable place for the implementation of the Zagros Industrial estate project. The right to exploit the land in the mentioned industrial town is equal to 12000000 Rial for each square meter and the related costs are considered in the plan. Land ownership is subject to legal terms and conditions and will be available to investors after exploitation. In order to acquire industrial land in this town, it is necessary for investors to obtain legal permits and purchase it.

4-2- Intellectual property and incentives:

In order to Milk powder, it is not necessary to use very high knowledge, and currently in the country, packaging and processing is done in a traditional or industrial way, and all the technical knowledge and machines in question are available in the country. Of course, the production must be in accordance with the domestic standard. The standard mark is a guarantee of the quality of the goods or services provided. The standard is referred to as a set of studies that will be used in the future and somehow balances the product purchased and the cost paid. It is also suggested that the Milk powder should be under the

brand registered in the Office of Trademarks, Inventions and Industrial Property, and branding and advertising activities should be considered.

4-3-legal permission:

In order to produce this product, we need legal permits such as (establishment permit and operating permit) from Kermanshah Province Industry and Mining Organization, environmental permit, health permit, and construction permit. Considering that this complex is included in the category of dry fruits, spices, non-meat preserves and agricultural products.

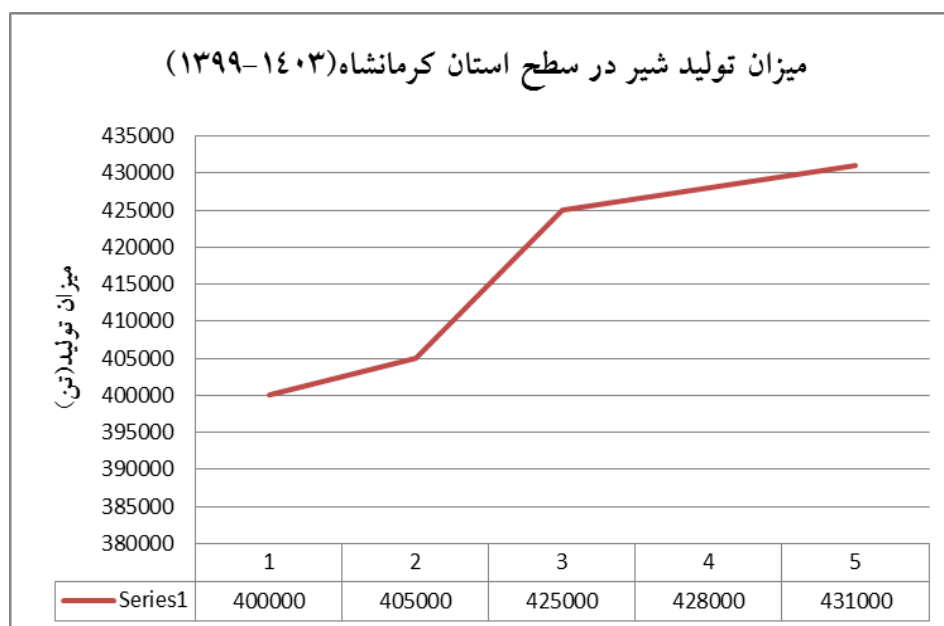
6- Market study and Competition:

The importance of milk and dairy products in a healthy diet cannot be ignored. A diet rich in milk and dairy products helps build and maintain bone mass throughout life. Getting dairy products is especially important for bone health during childhood and adolescence, when bone mass is being built. Because its maintenance and storage time is much longer than liquid milk, liquid milk remains healthy for only a few days and does not spoil, and it must be kept in the refrigerator at a low temperature and in a cool environment, but when water The content in it and the moisture in it is taken away, it can remain healthy for about months, and it is also much more economical than using liquid milk due to the reduction of its volume to move it and the cost of transportation and storage. In order to set up a dry milk production line, it is necessary to submit the justification plan of the dry milk factory to the relevant organization and the Ministry of Health. The milk powder market, both domestically and globally, is of great importance. In Iran, due to the increasing awareness of the benefits of powdered milk and lifestyle changes, the demand for this product is growing. At the global level, various factors such as population growth, increase in per capita income and changes in nutritional

patterns have led to the expansion of the milk powder market. In this part of the explanatory plan, the statistics and figures related to the production, consumption and import of powdered milk in Iran and important countries that produce this product should be detailed. In the following, the amount of milk and milk powder production in the world and the country has been examined:

Milk production in the world increased from 522 million tons in 1987 to 843 million tons in 2018, which shows an increase of more than 61%. The 1.8% increase in world milk production in 2018 compared to 2017 is due to the development of milk production in India and the European Union, Pakistan and the United States. This is while the amount of milk production in developing countries shows a growth of 2.4%.

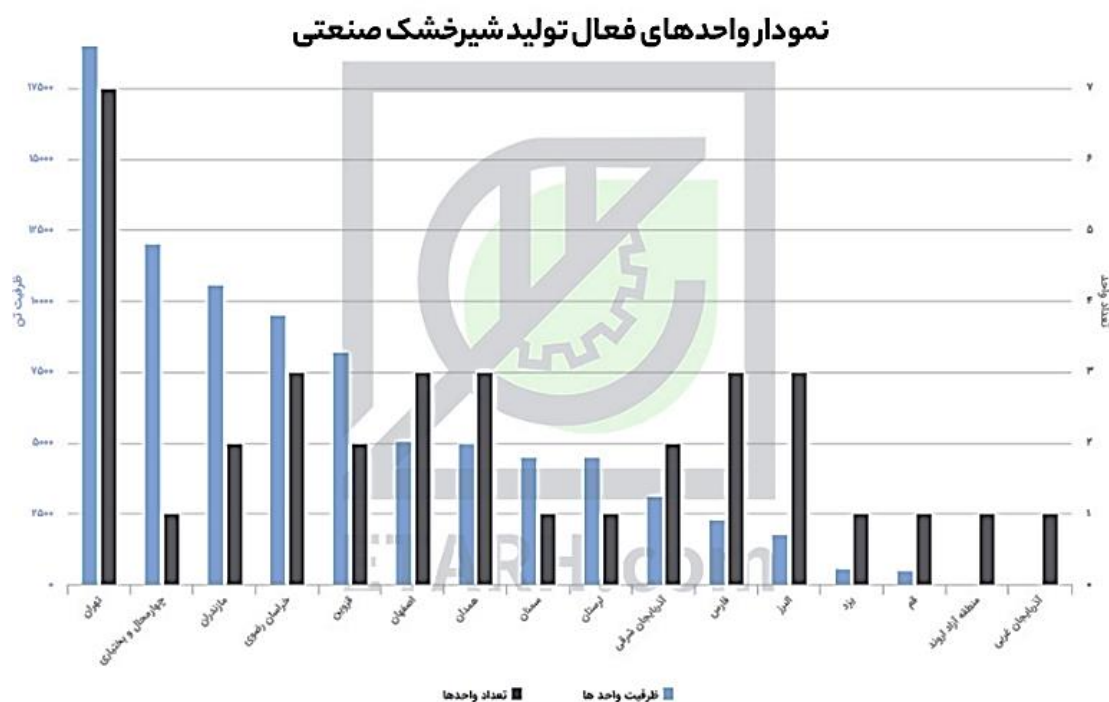
In 2017, the amount of milk production was 8.1 million tons. In the same year, the consumption of all kinds of milk and dairy products in the household is 3.9 million tons; the total production of fresh milk in Kermanshah province in 2022 is equal to 428 thousand tons.



According to the above graph, the amount of milk production in the province has an upward and increasing trend, which means that investment in this field will be particularly attractive.

The increased use of powdered milk in baby foods, the presence of various nutrients such as vitamin C, vitamin B12, thiamin and high levels of protein, as well as the need for less storage and lower transportation costs, will all have a positive impact. Milk powder market growth during the forecast period Furthermore, increasing consumer awareness of the benefits of maintaining a healthy lifestyle is expected to increase the demand for products made from milk powder. The global milk powder market size is expected to reach US\$ 65.3 billion by 2030, at a CAGR of 7.33% during the forecast period 2021 to 2030. In the forecast period 2021 to 2030, growing urban population is a major element in the expansion of the milk powder market.

Currently, the annual production of factories in Iran is 200 to 220 thousand tons of milk powder, of which 80 thousand tons of milk powder is consumed domestically and 150 thousand tons are exported. The following chart shows the number and capacity of industrial milk powder production units in the country by province, the number of units is equal to 35 units and their total capacity is equal to 86,700 tons; According to the statistics, the closest units are located in Hamedan province with a capacity of 5 thousand tons, so there is the capacity to create and produce it in Kermanshah province.



Considering the high volume of daily production of milk as well as industrial milk powder in Iran, producers can easily, in addition to meeting domestic needs, have the opportunity to export dairy products to countries such as Afghanistan, Syria, Lebanon, Yemen, Oman, Qatar, UAE, Bahrain, Kuwait, Turkmenistan, Azerbaijan, Georgia, Uzbekistan, Tajikistan, Kazakhstan and African countries. The largest importers of Iranian powdered milk are Pakistan, Afghanistan, Syria and Iraq, and these countries account for the largest volume of exchanges of powdered milk from Iran.

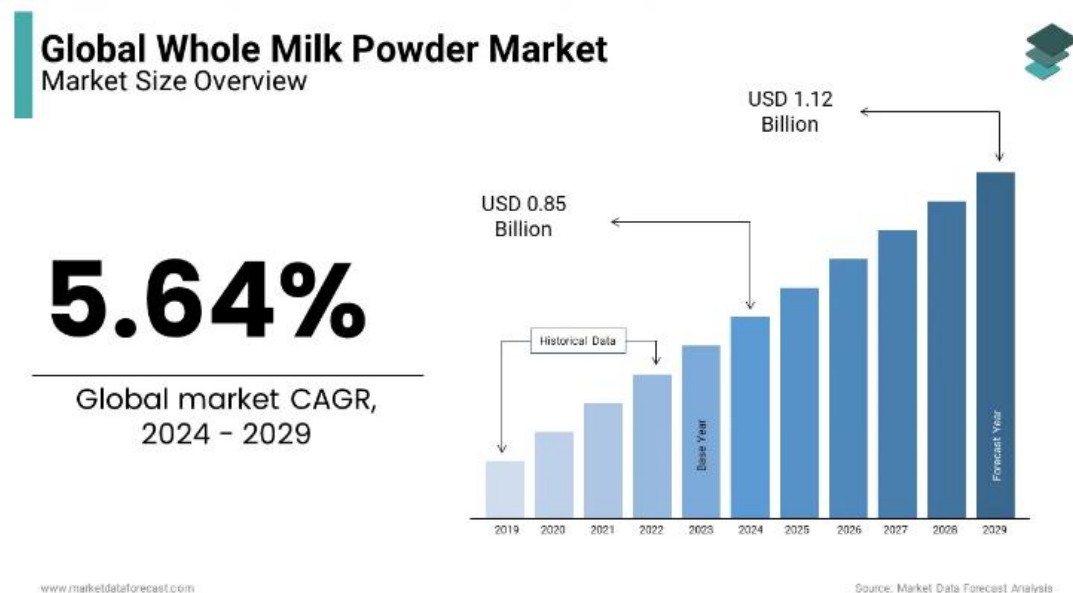
5-1- Introduce target market:

The demand for powdered milk is increasing due to various factors including convenience, long shelf life and ease of storage. As a popular dairy product, milk powder serves as a versatile ingredient in a wide variety of culinary applications and is a convenient option for those who may not have access to fresh milk on a regular basis. Additionally, it caters to consumers looking for

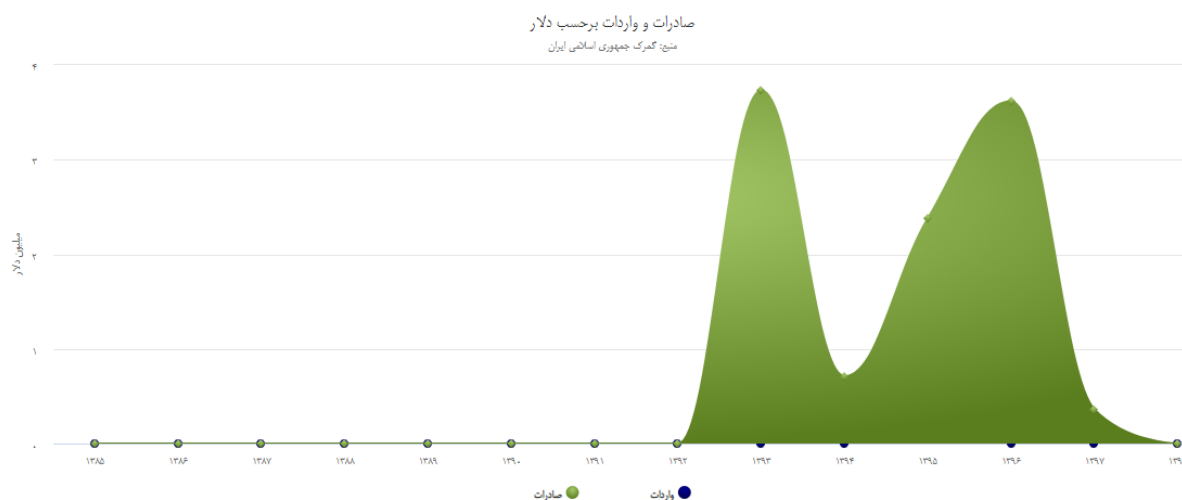
longer shelf life without compromising nutritional value. The convenience of reconstituting milk from powdered form is also attractive for busy lifestyles. In addition, the global milk powder market is influenced by the growing population, urbanization, and changing dietary habits, making it a key driver for the continued growth of the global milk powder market. According to the statistics of the Industry, Mining and Trade Organization, there are currently 35 active units in the field of milk powder production in the country with a nominal production capacity of 86 thousand tons. Considering the amount of milk produced as high as 8.5 million tons, this capacity was very low and Iran has a very good production and export opportunity. In the meantime, Kermanshah province with the production of 431 thousand tons of milk is a good opportunity for investment and milk powder production. has at his disposal

Data Bridge Market Research analyzes that the global milk powder market, which was valued at USD 35.17 billion in 2022, is expected to reach USD 48.51 billion by 2030, and is expected to experience a CAGR of 4.10% during the forecast period 2023 to 2030. "Milk powder" dominates the type segment of the global milk powder market as it offers a complete nutritional profile as it contains milk fat and solids and provides a rich source of essential nutrients such as protein, calcium and vitamins. In addition to insights into market scenarios such as market value, growth rate, segmentation, geographic coverage, and key players, market reports handled by Data Bridge Market Research include in-depth expert analysis, geographically represented company productions, and capacity. Layout of network of distributors and partners, accurate and updated analysis of price trends and short supply and demand chain analysis.

The powdered milk market is estimated to reach \$35.26 billion in 2024. This market is expected to exceed the value of 51.89 billion USD by 2034. The market is expected to experience steady growth and register a CAGR of 3.90% till 2034. Since powdered milk has a longer shelf life than regular milk, it is in greater demand. As far as milk powder type is concerned, the non-fat milk powder segment is likely to gain significantly in 2024, accounting for 46.1% of the milk powder market share. Likewise, the bakery and confectionery sector is expected to perform better in terms of application and account for a revenue share of 44.7% of the powdered milk industry in 2024.



According to statistics, 70-80% of powdered milk is exported to Iraq and Pakistan and the rest to other countries. The amount of export and import of industrial milk powder in Iran is shown:



In 2022, the average export price of dry milk in Iran (Iranian milk powder) decreased by 18.5% to approximately \$2,340 per ton, while the average import price remained stable at \$3,257 per ton. Starting in 2024, the price of a 25 kg bag of industrial non-fat dry milk in Iran is between 55 and 62 dollars. Iran is a major exporter of skimmed milk powder to countries such as Afghanistan, Oman, Qatar, Iraq, Syria, United Arab Emirates and Azerbaijan. In different countries, including Syria, Oman, Armenia, Tajikistan, Iraq, Turkey, Sri Lanka, Malaysia and the United Arab Emirates, the import price of one ton of skimmed milk has been almost 2400 dollars. Also, the price of a 25 kg bag of whole milk powder in Iran in 2024 was between 75 and 85 dollars. Chaltafarm is a major exporter of full milk powder (full fat milk powder) to countries such as Afghanistan, Oman, Qatar, Iraq, Syria, United Arab Emirates and Azerbaijan. In the mentioned countries, the import price of one ton of whole milk powder is about 3200 dollars.

7- Physical Progress of project: yes ☐ No ☒

This is a established plan and it is defined in order to cover the domestic needs of the country. There has been no progress in the implementation of this project so far.

8- Action plan and Implementation schedule:

The implementation of the project until its operation is planned for 24 months, and the operation of the project is expected from the middle of 2026. The schedule of the project is presented in the table below.

The timetable

Activity/executive operations/year	2024				2025				2026			
season	1	2	3	4	1	2	3	4	1	2	3	4
Conducting pre-investment studies	*											
Attracting investors and starting	*	*	*	*								
Obtaining the necessary permits and financing					*							
Providing engineering services					*							
Land purchase and preparation					*							
Choosing the project manager (contractors)					*							
Workshop equipment					*							
Construction and landscaping operations					*	*	*	*	*			
Ordering, buying and transporting machines						*	*	*				
Installation of machinery								*				
facilities							*	*				
Recruitment and training of employees									*			
Unforeseen delays									*			
Trial production									*			
Commercial production									*	*		

9- Financial projection:

In general, according to the stages of implementation and exploitation, the investment of the project is in two forms: fixed investment and initial working capital, and the necessary capital during the period before operation and creation of the plan is provided through fixed capital, and the necessary capital during the operation period is provided through working capital. . The fixed investment of the plan includes investment costs in land, landscaping and building, machinery and equipment, facilities, office equipment and pre-production costs. These types of costs are incurred at the beginning of the project and before operation and are depreciated during the life of the project according to their useful life. Working capital includes the capital needed during the operation of the project. The working capital of a production unit is the set of facilities, inventories and work in progress, as well as liquidity is required for the use and exploitation of fixed investment in order to maintain, continue and continue operations. Determining the basis of the amount of inventories, work in progress and receivables depends on the conditions of supply, production and sales processes and the business environment. In this section, the evaluation and estimation of the investment required to carry out the project (based on the price of the base year) has been estimated and calculated. The estimated costs for milk powder are listed in the following table:

8-1- The cost estimate:

The cost estimate

No.	subject	costs (million Rials)
1	Fixed investments	1,379,267.4
2	Operating costs	7,352,173.12
3	Financial costs	8,731,440.52

*The operating cost for the entire operation period of the project, according to Table (Operating cost), is equal to 46,264,881.96 million rials, which is not the correct basis for the working capital in this table, and the working capital of the first year of operation should be the criterion for action.

Fixed investment

No.	subject	costs (million Rials)	
1	land purchase	84,000	
2	Site preparation and development	78,750	
3	Civil works, structures and buildings	417,600	
4	Plant machinery and equipment	701,960	
5	Auxiliary and service plant equipment	10,328	
6	Environmental protection	18,750	
7	Incorporated fixed assets (project overheads)	2,200	
8	Pre-production expenditures (net of interest)	Studies	21,893.13
		Management and organization	21,893.13
		license	21,893.13
Total Fix investment		1,379,267.40	

Operating cost

No.	subject		costs (million Rials)
Variable cost			44,134,735.76
1	Material		39,652,500
2	Personnel		101,155.2
3	Marketing (except personnel)		3,204,494
4	Other variable costs	Maintenance costs	67,184.96
		Insurance	656.8
		Unforeseen expenses	1,101,544.8
		Energy costs (water, electricity and fuel)	7,200
Fixed cost			2,130,146.20
5	Material		0
6	Personnel		67,436.8
7	Marketing (except personnel)		801,123.5
8	Depreciation		128,965.9
9	Other fixed costs	Maintenance costs	16,796.2
		Insurance	12,479
		Unforeseen expenses	1,101,544.8
		Energy costs (water, electricity and fuel)	1,800

		electricity and fuel)	
	Total Operating cost		46,264,881.96

Description:

- Raw material cost is calculated as 100% of variable cost
- Salary cost is calculated as 40% of fixed cost and 60% of variable cost
- Energy cost is calculated as 20% of fixed cost and 80% of variable cost
- Maintenance cost is calculated as 20% of fixed cost and 80% of variable cost
- Insurance cost (equivalent to 1% of total investment value) is calculated as 95% of fixed cost and 5% of variable cost
- Depreciation cost is calculated as 100% of fixed cost (building depreciation rate is 2%, machinery and equipment 4%, facilities 10%, transportation vehicles 20% and office supplies 10%)
- Administrative and sales cost (equivalent to 10% of total costs) is calculated as 20% of production and 80% of non-production costs
- Unforeseen cost (equivalent to 5% of total costs) is calculated as 50% fixed costs and 50% variable costs.

Table 24- Estimated working capital (production costs)

title	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412
Raw mateRial	1,321,750,000,000.00	1,762,333,333,333.33	2,202,916,666,666.67	2,202,916,666,666.67	2,202,916,666,666.67	2,202,916,666,666.67	2,202,916,666,666.67	2,202,916,666,666.67	2,202,916,666,666.67	2,202,916,666,666.67
Personnel rights	8,429,600,000.00	11,239,466,666.67	14,049,333,333.33	14,049,333,333.33	14,049,333,333.33	14,049,333,333.33	14,049,333,333.33	14,049,333,333.33	14,049,333,333.33	14,049,333,333.33
Salary - Other	1,350,000,000.00	1,800,000,000.00	2,250,000,000.00	2,250,000,000.00	2,250,000,000.00	2,250,000,000.00	2,250,000,000.00	2,250,000,000.00	2,250,000,000.00	2,250,000,000.00
Demands	4,207,500,000,000.00	5,610,000,000,000.00	7,012,500,000,000.00	7,012,500,000,000.00	7,012,500,000,000.00	7,012,500,000,000.00	7,012,500,000,000.00	7,012,500,000,000.00	7,012,500,000,000.00	7,012,500,000,000.00
Inventory of manufactured goods	1,813,143,526,332.02	3,084,033,283,298.63	4,990,082,074,773.97	6,486,597,325,129.72	8,430,427,091,068.64	10,957,405,786,789.23	14,242,478,091,226.00	18,513,072,086,993.80	24,064,844,281,491.94	31,282,148,134,339.51
total	7,352,173,126,332.02	10,469,406,083,298.63	14,221,798,074,773.97	15,718,313,325,129.72	17,662,143,091,068.64	20,189,121,786,789.23	23,474,194,091,226.00	27,744,788,086,993.80	33,296,560,281,491.94	40,513,864,134,339.52
Increase or decrease in working capital	7,352,173,126,332.02	3,117,232,956,966.61	3,752,391,991,475.34	1,496,515,250,355.75	1,943,829,765,938.92	2,526,978,695,720.59	3,285,072,304,436.77	4,270,593,995,767.80	5,551,772,194,498.14	7,217,303,852,847.58

8-2- Estimated revenues:

The wholesale price of the products has been obtained according to the information of the market participants. Based on this (and according to the production plan), the total sales amount of the project in the year of operation of 1406 at the fixed prices of 1402 is estimated to be equal to 36,465 billion

Rial. This figure will increase in the following years due to the increase in production capacity and will increase to a maximum of 644,488 billion Rial.

Table 25- Project revenues (million rials)

No.	subject	Season 1	Season 2	Season 3	Season 4	Year 1	year2	year3	year 4	year 5
	Production	3750	3750	3750	3750	15000	20000	25000	25000	25000
	dry milk	4,012,500	4,012,500	4,012,500	4,012,500	16,050,000	21,400,000	26,750,000	26,750,000	26,750,000
	cream (byproduct)	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000	16,000,000	20,000,000	20,000,000	20,000,000
	Total	7,012,500	7,012,500	7,012,500	7,012,500	28,050,000	37,400,000	46,750,000	46,750,000	46,750,000

Description:

- The production capacity in the first year is considered to be 60% of the nominal capacity
- The production capacity in the second year is considered to be 80% of the nominal capacity
- The production capacity in the third year onwards is considered to be 100% of the nominal capacity
- The price of each ton of industrial dry milk powder is considered to be 1070 million rials, and each ton of cream is considered to be 800 million rials.

Starting in 2024, the price of a 25 kg bag of industrial non-fat dry milk produced in Iran is between 55 and 62 dollars, which, including the dollar at the rate of 650 thousand rial, it can be said that the price of each kilo of industrial dry milk is equal to 1560 thousand It will be 1070 thousand rial.

8-3-Duration of project operation:

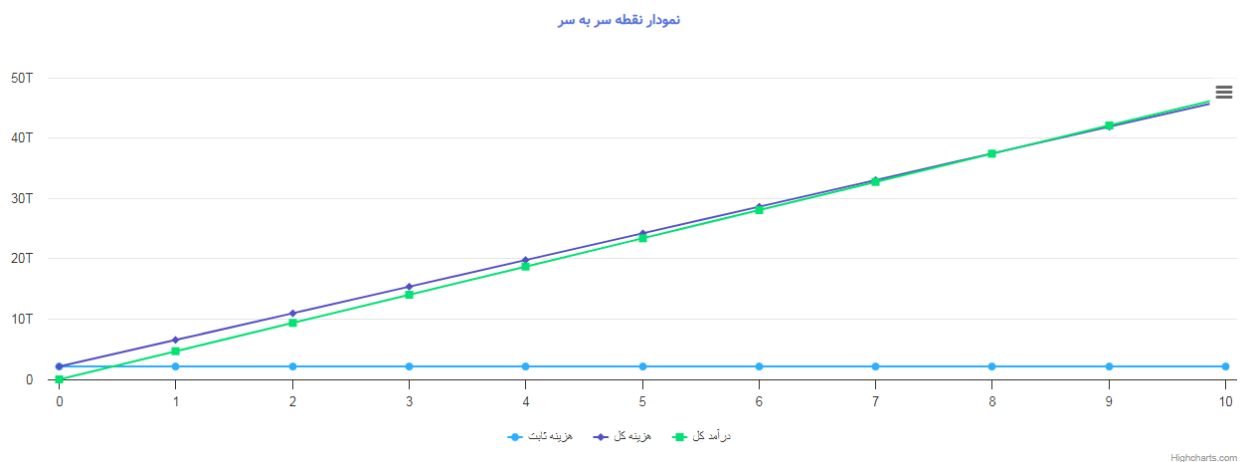
The construction period of the plan is 24 months and it is considered to start from April 1403. The duration of the project is considered to be 10 years.

According to the formula below, the (simple) payback period of the plan, according to the calculations, is equal to (2.68 years) or, to put it better, it is equivalent to 2 years, 8 months, and 20 days (equal to the year 1405), which in the following plan is assumed to be equivalent to 2 years and 9 months.

$$\text{Period Payback Investment Project} = \frac{1}{IRR} + \text{Construction period} = \frac{1}{146.26} + 2 = 2.68$$

8-4-Break- even analysis:

From an economic point of view, break-even point analysis is an important technique that is used to study the relationships between costs, income and profit, and according to the definition, break-even point is the points where the exploitation of the plan creates neither profit nor loss. In other words, the break-even point analysis determines the points where the sales revenue is equal to the production costs, and thus it is used to analyze what effect the change in product volume will have on the profit; The percentage of sales at the break-even point is 81.45%, which means that in this project, in order to reach a point where we have neither profit nor loss, we must use 81.45% of the nominal capacity.



8-5- Cost-benefit analysis:

In project analysis, one of the most common methods is the Benefit-Cost Ratio. In this method, the ratio of the current value of possible benefits to the current value of costs is obtained. If this ratio is greater than one, the plan has economic justification for implementation. In terms of this index, the plan has favorable conditions.

The net current value of the project at a discount rate of 25% is 16,320,602.2 million Rial, which indicates the economic justification of the project.

One of the other methods of checking and evaluating investment plans is the method of internal rate of return. In fact, the internal rate of return is the interest rate or discount rate in which the current value of all benefits of the plan is equal to the current value of its expenses. According to the calculations, the internal rate of return of the plan is estimated at 146/26% and compared to the Minimum Attractive Rate of Return, it is favorable.

Table26-The table of project efficiency indicators

total fixed investment Present value	644,488,449.3
total net revenue Present value	563,078,666.4
Net present value (NPV)	16,320,602.2
benefit - Cost ratio B/C	1/14%
Internal rate of return (IIR)	146.26%

8-6- Sensitivity analysis of IRR:

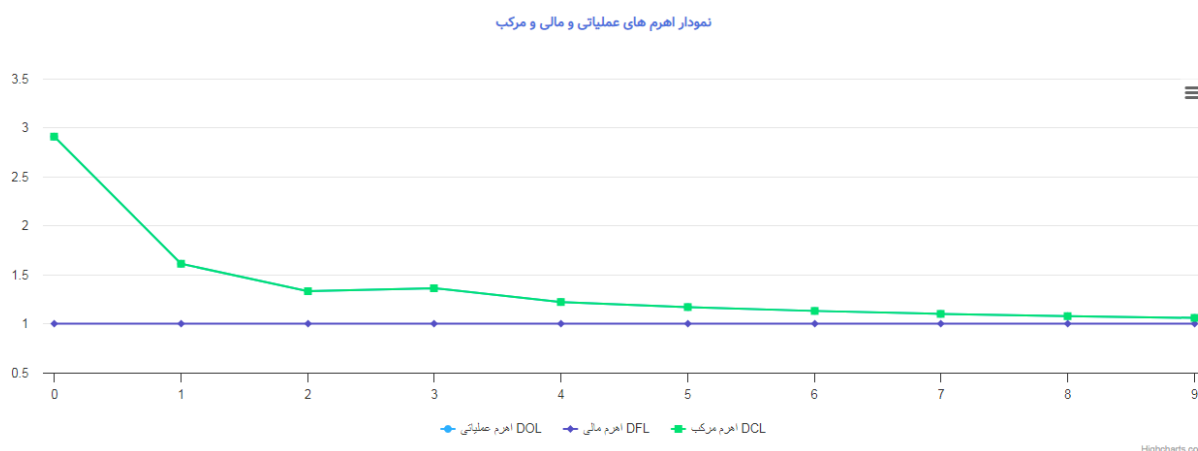
In the sensitivity analysis of plans, the percentage of changes in the internal rate of return (IRR) of the plan is measured relative to the change in some parameters and basic variables of the plan. In this plan, the analysis is based on major variables such as sales revenue, fixed costs of the plan, and operational costs of the plan. The following table shows the results of the sensitivity analysis regarding the variables of operating leverage DOL, financial leverage DFL and compound leverage DCL.

The amount of operating leverage and compound leverage (the overall risk of the company) has always been decreasing from the first year to the tenth year, that is, the risks have been decreasing.

Sensitivity of IRR

leverage	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412
DOL	2.91	1.61	1.33	1.36	1.22	1.17	1.13	1.10	1.08	1.06

leverage	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412
DFL	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
DCL	2.91	1.61	1.33	1.36	1.22	1.17	1.13	1.10	1.08	1.06



8-7- Summarize table:

The implementation of the project is planned by obtaining a land with an area of 7,000 square meters and carrying out construction in the substructure of 3,520 square meters. The total investment in land and building is estimated at 580 billion Rial and the total investment in main and auxiliary equipment is estimated at 434 billion Rial.

The total pre-operational costs are estimated at 65.6 billion Rial, including the total required fixed capital of 1,379 billion Rial and the total working capital required for the project is 7352 billion Rial. The total investment of the project is estimated to be 8731.44 billion Rial from the resources provided by the company's shareholders.

The internal rate of return (IRR) of the project is estimated at 146.26% and the payback period (PBP) is estimated at a maximum of 2 years and 9 months. Also, the net present value of the project's cash flows (NPV) is positive and, considering the expected interest rate of 30%, is equal to 16,320 billion Rial.

The liquidity status of the plan and the payment of dividends to the shareholders from the company's funds are also suitable. Therefore, if the assumptions and predictions are fulfilled, the plan under consideration has

favorable profitability and according to the financial results obtained, its implementation is recommended. The economic aspects of the project are summarized as follows.

"Summary of economic issues"

activity	International Standard Industrial Classification (ISIC Code)	product name	Nominal capacity (unit)
Milk powder production	1520412725	Industrial milk powder and cream	25000 ton
Activity duration	Fix investment (million Rial)	Variable investment (million Rial)	Human resources
2 years	1,379,267.4	7,352,173.1	63
Internal rate of return (IRR)	Net present value (million Rial)	Owners share (million Rial)	Benefit-cost ratio *B/C
146/26%	16,320,602.22	---	2/92%

According to the expected rate of return and the net present value of the plan, it is recommended to invest in this plan. Also, with calculations made, the internal rate of return (IRR) of this plan is 146.26%, which is compared to the investor's expected rate of return (30 percentage); This project is in a favorable condition; Therefore, in terms of this financial index, investment in this plan is suggested.

8-8-Estimation of exchange rate changes during the project implementation:

The exchange rate at the time of evaluation is included as described in the table below. The buying and selling prices are under the market prices and are adjusted to a large extent under the influence of the exchange rate increase. If in the construction and implementation phase, if the financing of the project is through foreign currency sources, the amount of financial resources required will not change much. Considering that a part of the target market of milk powder products is defined as foreign markets such as Iraq, Pakistan, Afghanistan, etc., therefore, the increase in the exchange rate will reduce the development of exports and foreign exchange for the company, since in this

plan, Dependence of raw materials and production line on foreign items is very low, so fluctuations in exchange rate and its increase will not have much impact on the company. In general, exchange rate fluctuations will have little effect on the evaluation results.

9- Capital needs, the supply and guarantees method:

9-1- Foreign currency needed:

The plan does not need foreign currency and the total fixed capital of the plan is Riyal (Table 21).

No.	year	Exchange rate
1	first	0
2	second	0
3	third	0
4	fourth	0
5	fifth	0

9-2- The Way of participation and finance method:

Participation in the present project and its financing is foreseen in the form of establishing a company inside the country. The total financial resources required are predicted through the investor's contribution and have not been included in order to implement the facility plan of domestic banks.

9-3- Payback period:

The payback period is the period of time during which the initial investment of the project is compensated by the annual cash flows of the project. According to the formula below, the (simple) payback period of the project is estimated to be (2.68 years) or, to put it better, 2 years, 8 months, and 20 days (equivalent to the year 1405), which is assumed to be 2 years and 9 months in the following.

$$\text{Period Payback Investment Project} = \frac{1}{IRR} + \text{Construction period} = \frac{1}{146.26} + 2 = 2.68$$

10- Incentives, features and advantages of project:

The financial support of production units includes the granting of bank facilities and how to repay them, as well as tax exemptions, which, if appropriate, facilitate the implementation of the plan and provide the conditions for investment. Some of these conditions are discussed below.

One of the important banking facilities for production units is the payment of long-term bank loans up to 70% of fixed investment by the country's state banks. This amount can be increased up to 90% for deprived areas if foreign machines are used. The interest rate of long-term Riyal facilities in the industry sector is 23%, which in case of good calculations, part of the interest of the facility can be repaid. According to the nature of the production plan, the type of technology and the possibility of exporting the product, the repayment period of long-term bank facilities is up to 8 years, and it is also possible to use a one- to two-year breathing period for repayment of installments.

Another important bank facility is short-term bank loans (6 to 12 months) for use as working capital needed to carry out production processes, which the banking network provides up to 70% of. Taking short-term facilities to this extent depends on gaining the trust of the operating banks and having a favorable record in repaying the previously received facilities.

Also, after preparing the land and obtaining the approval in principle and exploitation license from the General Directorate of Industry, Mining and Trade and Jihad Agriculture, people can use the facilities listed in the law of the program, such as the facilities of "Paragraph A of Note 18" or "Paragraph A of Article 52 of the Accession Law" through registration in the Sina system. The applicant can use this facility in the construction of the facilities of this

production unit by providing his contribution. Among the other incentives of this plan, we can mention the export awards for the products exported abroad, the exemption of commercial profit for the import of capital machinery. Also, the tax exemption of the total taxable income of industrial units will continue until it reaches twice the registered and paid capital, at the rate of 100% in less developed areas and at the rate of 50% in other areas. In addition to these cases, individuals who provide cash to finance the project and working capital of production enterprises in the form of partnership contracts, equivalent to the minimum expected profit of partnership contracts (facility profit), are exempted from paying income tax.

If investment in different economic sectors leads to product export, 100% of the income from the export of services and non-oil goods and 20% of the income from the export of raw material will be taxed at a zero rate (if the products are packaged (provided that the excess domestic market) to be sold in foreign markets, it can be subject to the exemption of Article 141 and 100% of the income from exports is exempt from tax) also if the legal personality of the partnership is defined as a public stock and it can be part of the accepted companies during its operation. calculated in the stock exchange market (in such a way that the transfer of its shares can be done through the stock broker) is subject to Article 143 of the Direct Taxes Law and is exempted up to ten percent of the company tax.

To encourage investors and guide them to build factories in disadvantaged areas, tax exemptions have been considered, some of which are:

- Tax exemption for up to 10 years for project implementation in deprived areas
- Tax exemption for up to 4 years for project implementation in industrial towns

Also, investment in the plan during its implementation includes investment in industrial towns within a range of more than 30 kilometers of cities with a population of more than 300 thousand people, it can have tax exemptions in Article 132 of the Direct Taxes Law and up to 4 years after the date of operation, 80% exempt be from the tax of Article 105 (Direct Taxes Law). Based on this, the effective tax rate on performance (annual profit) can be reduced to 4% in the first 4 years, and then it will be considered based on 20%. Obviously; If the place of establishment is in one of the deprived areas, it will be subject to 10 years of 100% exemption, and this plan can use the above benefits.