



Islamic Republic of Iran
Ministry of Economic Affairs and Finance

General Department of Economic Affairs and Finance of North Khorasan



Horse Breeding

Raz & Jargalan, Sukhsu Hashem

Center of Investment Services of North Khorasan

2021 April

Summary of Technical-Economical Pre-Feasibility Study

The name: Horse breeding

Sector: Agricultural

Subsector: Livestock

ISIC Code: 0121412318

The owner of:

Organization of Economic Affairs and Finance (North Khorasan)



The ADDRESS:

Iran, North Khorasan, Raz&Jargalan, SukhsuHashem

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1 Abstract

1.1 Project Profile

Table 1: Summary Sheet

Project Introduction			
Project Title	Horse Breeding		
Sector	Agricultural		
Sub Sector	livestock		
Location	Raz&Jargalan, SukhsuHashem		
The County	Raz&Jargalan		
Products / Services	Mares, stallions		
Annual Nominal Capacity	10		LSU
The Raw Material	-		
Employment	3		Person
Land Area	3380		m ²
Floor Area	985		m ²
Energy and Water Consumption	Water Consumption	109.5	m ³ in year
	Electricity Consumption		KW
	Gas Consumption		m ³ in year
Fixed Capital	7054.965		Million Rial
Working Capital (The First Year)	798.866		Million Rial
Payback Period	4.88		Year
Net Present Value (NPV)	3,560		Million Rial
Internal Rate Of Return (IRR)	55		%
Modified Internal Rate of Return (MIRR)	-		%
Break Even Point	21.46		%
The Exchange Rate (Dolar)	240,000		Rial
Description	Establishment of industrial horse breeding and production of mares and stallions		

Table 2: Legal Authorizations

Licensure Status	
Descriptions	Issuance Status
Principal Agreement (Establishment Licensure)	☒
Land Allocation	☒
Environmental Inquiry	☒
Possibility of Water Supply	☒
Possibility of Electricity Supply	☒
Possibility of Electricity Supply	☒
Possibility of Gas Supply	☒

Table 3: Total Investment

Descriptions	Local Currency Required			Foreign Currency Required (Million Euro)	Total (Million Euro)
	(Million Rial)	Rate	Equivalent in (Million Euro)		
Fixed Capital	7054.965	240,000	0.0293	0	0.0293
Working Capital	798.866		0.0033	0	0.0033
Total Investment	7853.831	240,000	0.3272	0	0.3272

- Value of Foreign Equipment / Machinery: 0 Million Euro
- Value of Local Equipment / Machinery: 0.0015 Million Euro
- Net Present Value (NPV): -Million Euro in 6 Years
- Internal Rate of Return (IRR): 55%
- Payback Period: 4.88Years

Table 4: General Information

Company Profile	
Project Type	Establishment <input checked="" type="checkbox"/>
Company Name	North Khorasan Organization of Agriculture Jihad
Contact Person (Name and Position)	Mr Rezvan Nikbakht
Email	et.1383@yahoo.com
Mobile	+989379094738
Tel	+9858-32257990
Website	http://portal.nkj.ir
Address	North Khorasan Province, Bojnurd, Chehelodometri Kamarbandi Blvd, North Khorasan Organization of Agriculture Jihad
Company's Legal Structure	Government <input checked="" type="checkbox"/>

2 Project Location

2.1 Province: North Khorasan

2.2 The County: Raz and Jargalan

Raz and Jargalan County is a county in North Khorasan Province, Iran. At the 2006 census, its population was 55,418, in 12,968 families. The County has one city: Raz. The County

has three districts: Gholaman Rural District, Jargalan Rural District, and Raz Rural District.

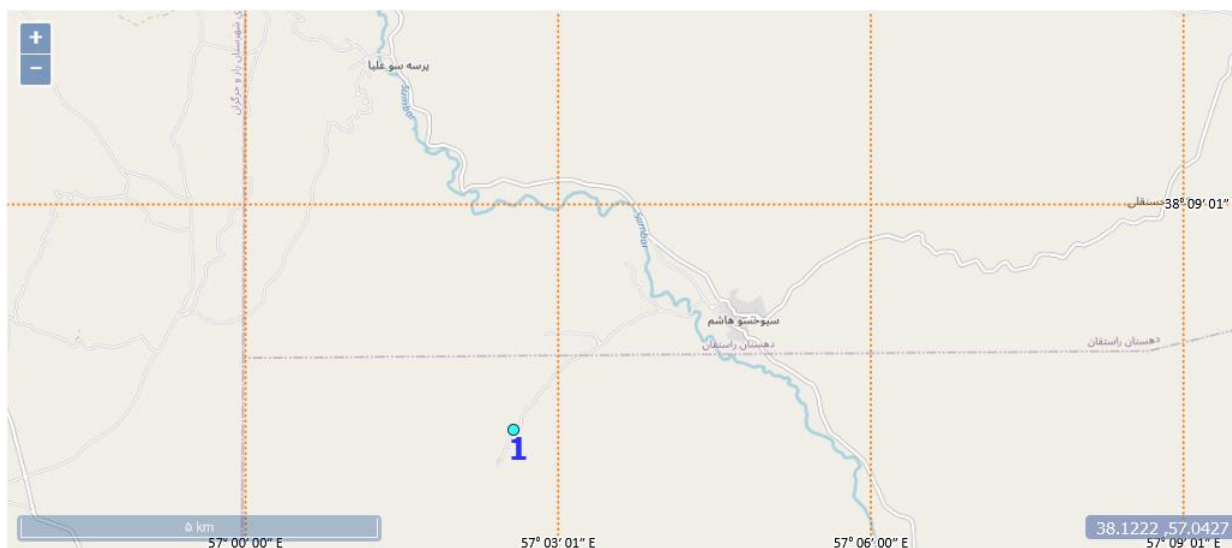


Figure 1: Location of Proposed Land in Raz and Jargalan

2.3 The Project: Horse Breeding

2.4 Access to the Infrastructures

Table 5: Access to Infrastructures

No.	Needed Infrastructures	Distance to the Project	The Supply Infrastructures
1	Water	0	is provided
2	Electricity	0	is provided
3	Gas	0	is provided
4	Telecommunications	0	is provided
5	High way	<1 km	is provided
6	Sub way	0	is provided
7	Airport	8	is provided
8	Amirabad Port (Behshahr)	429	is provided
9	Bandar Abbas Port	1595	is provided
10	Rail way station of Joveyn	235	is provided
11	Rail way station of Jajarm	301	is provided

3 Technical Specifications of Plan

3.1 Product

Table 6: Project Specifications Based on ISIC Code

The Project	ISIC Code	Customs Tariff	Environmental Category
Horse Breeding	0121412318	-	-

Horse breeding can be used for the following purposes:

- Entertainment and recreation.
- Attracting tourism.
- Sports and equestrian.
- Transportation (cargo).
- Applying scientific research in the field of breeding and breeding in order to preserve superior genes.
- Providing opportunities for direct and indirect employment.

Types of horse breeding and maintenance systems:

- Traditional system: this system can be named rural and nomadic methods which is based on their ancestral traditions are maintained for the purpose of transportation, horseback riding, plowing of agricultural lands, Production of horses, mules, and selling to other parts of the country.
- Industrial system: Existence of goals such as economic, scientific (in order to preserve the superior breeds), sports (sports competitions and winning medals), etc. has caused horse breeding to be considered as a desirable and useful animal by many breeders and many people interested in breeding Industrial this animal.

3.2 Project's Requirements

Horse housing standards:

Stables: Since the horse spends most of the day and night in the stables, its place of keeping must have the following conditions:

- 1- It should be sunny, so that both the horse and its surroundings are exposed to sunlight and are not exposed to diseases caused by lack of light. The horse is constantly evacuating

itself, creating a conducive environment for germs to grow, and disease germs such as tetanus can easily live in a contaminated stable environment without sunlight.

2- It should has enough space for the horse to move around easily and sleep and get up. Horses sleep easily if they feel safe and have enough space.

3- It should have a constant temperature.

4- Its walls it should make of materials that do not injure the horse due to abrasion.

5- The stalls and its floor should be washed and cleaned every few days, especially the stalls. The bed should be soft and covered with straw or sawdust so that it can be easily transported and changed at least once a day.

6- The door or doors should have enough space for the horse to enter and exit.

7- Fences between the rooms should be installed in such a way that the horses can easily see each other and enjoy the company with each other.

3.3 Space and Infrastructure Required

Table 7: Land Purchase Costs (Million Rial)

Specifications	Area (m^2)	Price per m^2	Cost		
			Paid Cost	Needed Fund	Total
A piece of land in Sukhsu Hashem	3380		0	0	

Table 8: Site Preparation and Development Costs (Million Rial)

Description	Working Capacity	Unit	Unit Price	Paid Cost	Needed Fund	Total
Land Purchasing	3380	m^2	-	0	0	-
Wall Construction	100	m^2	800000	0	0	80
Environmentalization (Excavation)	300	-	150000	0	0	45
Unforeseen (%3)			-	0	0	3.75
Total				0	0	128.75

Table 9: Civil Works, Structures and Buildings Costs (Million Rial)

Description	Area (m ²)	Unit Price	Paid Cost	Needed Fund	Total
The place of mares and foals	170	4500000	0	0	765
male and female foals (Two-year-old)	30	4500000	0	0	135
male and female foals (Three-year-old)	60	4500000	0	0	270
Feeding corridor	60	3000000	0	0	180
Fodder warehouse	60	4500000	0	0	270
warehouse	15	4500000	0	0	67.5
Residential	20	12000000	0	0	240
Quarantine	25	4500000	0	0	112.5
Maternity ward	20	5000000	0	0	100
Fence for mares and foals	520	500000	0	0	260
The place of Stallion	15	4500000	0	0	67.5
Fence for Stallion	30	500000	0	0	15
Unforeseen cost (%3)	-	-	0	0	74.475
Total			0	0	2556.98

Table 10: Infrastructures

No	Description	Unit	Annual Consumption	Unit Cost (Rial)	Total (Million Rial)
1	Water consumption	m ³	109.5		
2	Electricity consumption	Kw			
3	Gas consumption	m ³			
4	Gasoline	Litr			
5	others				
Total					

3.3.1 Equipment and Machinery

Table 11: Plant Machinery and Equipment Costs (Million Rial)

Description	Unit Cost	Costs Required				Total
		Local Costs	Costs of Currency		Cost to Complete	
			Rate	(Million Euro)		
Capsule Fire Extinguisher	5	5	240,000	0	0	5
Refrigerator And Stove	50	50		0	0	50
Water Heater	12	12		0	0	12
Chopping Fodder Machine	50	50		0	0	50
Management Room Equipment	50	50		0	0	50
Fuel Reservoir	60	60		0	0	60
Water Reservoir	60	60		0	0	60
Heater	5	5		0	0	5
Work-Tools	50	50		0	0	50
Sprayer	15	15		0	0	15
Unforeseen (%3)	10.71	10.71		0	0	10.71
Total		367.71	240,000	0	0	367.71

The exchange rate is: 1 € = 240,000 Rial

3.3.2 Raw material and Intermediate Components

Table 12: Raw Material and Intermediate Components (Million Rial)

Description	Unit	Total Consumption of the Raw Material	Price per Unit of Raw Material	Annual Cost of Providing Material
Personnel	Rial	-	35.4375	850.5
Animal Feed	Rial	-	0.0016	708.27
Health Medicine And Treatment	Rial	-	2.6667	32
Fuel, Water, Electricity	Rial	-	4.341	52.1
Insurance	Rial	-	0.4504	54.049

Description	Unit	Total Consumption of the Raw Material	Price per Unit of Raw Material	Annual Cost of Providing Material
Transportation	Rial	-	0.8333	10
Repair And Maintenance	Rial	-	6.8434	82.1208
Cost Of Horseshoes	Rial	-	0.195	23.409
Depreciation	Rial	-	10.2712	123.254
Total				1935.7

3.3.3 Management and Human Resources

Table 13: Salary of Administrative Staff (Million Rial)

No.	Position	Number of Shifts	Personnel per Shift (No.)	Total Staff (People)	Monthly Salary (per Person)	Annual Salary
1	Manager (Livestock Expert)	-	-	1	30	360
2	Livestock Worker	-	-	1	25	300
3	Insurance (Employer Share Insurance)	-	-	-	-	80.5
4	Total	-	-	2	-	740.5
5	Gifts And Rewards (Two Months Of Salaries In Rows 1 And 2)	-	-	-	-	110
Total						850.5

- Number of skilled personnel required: 1
- Number of non- skilled personnel required:1
- Total number of personnel required: 2
-

4 Market Study and Competition

In many countries around the world, the horse breeding industry is considered a lucrative industry. In these countries, the most economic and commercial goals of horse breeding are in the field of tourism.

According to available statistics, the United States has been able to get the most trade from horse breeding in the field of tourism.

Due to the high power and capacity of indigenous breeds and favorable climatic conditions, with the expansion and development of horse breeding in Iran, the fields of creating direct and indirect employment

in the fields of coaching, veterinary, breeding, horse racing, annual auctions and Provided seasonal sales, etc.

Horse exports are an opportunity to make horse breeding economical

One of the good conditions for creating added value is export.

Follow-ups have been done for the export of Turkmen horses from the province's customs and now the conditions for exporting Turkmen horses from the province are available and there are no restrictions in this regard. But quarantine conditions of other countries must be provided for the export of horses .

Given that this province is one of the valuable centers of Turkmen horse`s breeding, so the formation of a chain is necessary for the development of this industry.

In fact, it can be called the missing link in this industry.

By creating this chain, one can follow issues such as receiving facilities, government aid or state support, because forming a chain for important issues is one of the issues in the discussion of resistance economics.

One of the people`s livelihood of Raz and Jarglan is Turkmen horse breeding.

Turkmen thoroughbred horses have a unique position in the country and North Khorasan, which can not be denied, but these days, shortcomings and negligence have caused the horse industry in this province can not grow and develop.

5 Financial Projection

5.1 The Cost Estimate

Table 14: Total Investment (Million Rial)

No.	Subject	Cost
1	Fixed Capital	7054.97
2	Working Capital	798.866
Total investment		7853.83

Table 15: Fixed Capital (Million Rial)

Subject	Paid Cost	Cost Required			Total Cost	
		Local Cost	Foreign Exchange Cost			Needed Fund
			Rate	(€)		
Land Preparation	0	128.75	240,000	0.000536	0	128.75
Study Costs Before The Project	0	104.03		0.000433	0	104.03
Horse Purchasing	0	2900		0.012083	0	2900

Subject	Paid Cost	Cost Required			Total Cost	
		Local Cost	Foreign Exchange Cost			Needed Fund
			Rate	(€)		
Machinery, Equipment And Vehicles	0	367.71		0.001532	0	367.71
Building	0	997.5		0.004156	0	997.5
Facilities	0	2556.975		0.010654	0	2556.975
Total	0	7054.965		0.029396	0	7054.965

Table 16: Working Capital (Million Rial)

Subject	Day	Total
Raw materials (2 months of Raw materials and packaging)	180	779.385
Imprest fund (20 days of production costs except the initial cost)	60	19.781
Total		799.166

Table 17: Fixed and Variable Costs

No	Production Cost	Fixed Cost		Variable Cost	
		%	Cost	%	Cost
1	Raw Material	0	0	1	708.27
2	Salary	1	552.825	0	297.675
3	Energy Costs (Water, Electricity And Fuel)	0	10.42	1	41.68
4	Repair And Maintenance	0	16.424	1	65.697
5	Office And Sales	0	0	1	94.72
6	Depreciation Cost	1	123.254	0	0
7	Insurance	1	54.049	0	0
8	Depreciation Before Operation	1	0.14	0	0
Total Production Costs			757.112		1208.04

5.2 Break-Even Analysis

Table 18: Break-even Analysis

Period	2021	2022	2023	2024	2025	2026	2027
Break-even ratio(%)	53.97	73.87	73.87	72.12	72.12	54.15	23.31

5.3 Sensitivity Analysis of IRR

Table 19: Sensitivity Analysis of IRR

Variation (%)	Sales revenue	Increase in fixed assets	Operating costs
-20.00%	3.39%	18.73%	20.51%
-16.00%	5.66%	17.80%	19.30%
-12.00%	7.91%	16.90%	18.10%
-8.00%	10.12%	16.06%	16.89%
-4.00%	12.31%	15.25%	15.68%
0.00%	14.47%	14.47%	14.47%
4.00%	16.61%	13.73%	13.25%
8.00%	18.74%	13.01%	12.04%
12.00%	20.85%	12.33%	10.81%
16.00%	22.95%	11.67%	9.59%
20.00%	25.04%	11.03%	8.36%

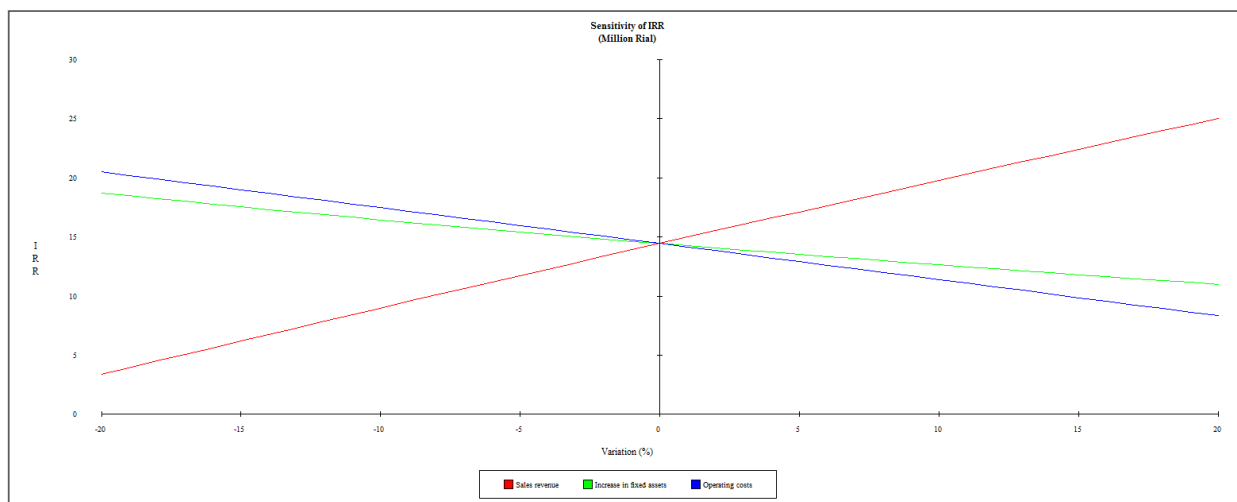


Figure 2: Sensitivity Analysis of IRR

6 Duration of Project Operation

Table 20: Action Plan and Implementaion Schedule

Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Land Purchase	█	█	█																						
Constructing Buildings				█	█	█	█	█																	
Execution of Facilities									█	█															
Order, Purchase of Machinery										█	█														
Landscaping											█	█													
Machinery Strat-up and Trial Production												█	█												

7 Incentives, Features and Advantages of Project

North Khorasan Province is a province located in northeastern Iran. Bojnord is the capital of the province. This province contains many historical and natural attractions, such as mineral water springs, small lakes, recreational areas, caves and protected regions, and various hiking areas. Advantages of the agriculture of this province involves favorable and diverse climatic conditions and other parameters affecting growth.