

Form1.

Summary of plan of establishing potato chips and semi-fried frozen chips (French Fries) production unit

1. Introduction to products or services

1.1. The goal of plan

The main goal of this plan is to establish potato chips production unit in Lorestan province. This plan will be exploited from 2018 with 26 personnel and 70% of the practical capacity in 1 working shift of 8 hours and 300 day annually and will reach its 100% of the practical capacity by 2020.

1.2. Characteristics and advantages

Potato chips: the term “potato fried products” mostly refers to the French fries (fried slice). Chips is an American word referring to a thin cut of the potato in oil. In UK, they call this product Crisp. Chips is fried in oil with humidity up to 2% and it is yellow, and its taste is desirable with fragile texture. In addition, chips has to have less than 15% bleb, less than 10% partial defects and less than 5% major defects and its fat has to be 32-40%.

Frozen semi-fried potato (French fries): French fries are the slices of the potato with different shapes passed the processing, semi-cooking, drying and semi-frying and finally, freezing processes. Producing French fries is one of the profitable opportunities in food industries investment area. Iran, due to particular geography, climate and climate diversity, is highly capable of potato farming and processing and this is the base of the occupational and entrepreneurial opportunities in Iran. In ready-to-cook products area, this product is of the low costs and high frequency of the potato, frequent consumption of fast foods in restaurants, its introduction to the family foods and finally suitable exporting markets to neighbor countries due to the governing conditions.

1.3. Custom fees

Table1. Chips custom fees and tariffs

No.	Description	Tariff code	Fees %
1	Potato, protected except in vinegar or vinegar essence or in frozen sugar	20052000	40
2	Potato, protected except in vinegar or vinegar essence or in frozen	20041000	40

1.4. ISIC code

The plant considered is for potato chips production. The ISIC code related to this product is 1513 in the department of industry, mine and commerce systems in subgroup food and drinks production and its measurement scale is ton.

Table2. Product ISIC code

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ISIC code	Description	Scale
1513412460	Potato Chips	Ton
1513412458	Frozen semi-fried potato (ready-to-cock)	Ton

1.5. Introduction to products application

Processed potato in form of Chips is mostly consumed as junk food and the fried slices is mostly used in food. Of course, Chips is a meat made foods complement but it is generally used as junk food. In Iran, during recent years, the potato slices are introduced to the markets as frozen or semi-frozen forms; but its place is not certain in the Iranian food cycle. Of course, based on the eating habits and lifestyle changes and with a quality to be placed instead of the home fried potato, it is predicted that this product would be welcome in future due to its high quality and correctly introduction.

2. Suggested sites

Based on surveys, the cities such as Dorud and Borujerd are suitable sited for establishing this unit.

3. Raw, auxiliary materials and consumables

The raw materials are potato, oil and salt.

4. Sales plan and target market (local and foreign)

The target market at first is to supply locally in sections and then for additional production, the export would be done to Iraq and western neighbors.

Table3. Products production and sales plan

Description	2018	2019	2020	2021
Production capacity	70%	80%	90%	100%
Potato chips	420	480	540	60
French fries	420	480	540	600
Sales level	840	960	1080	1200
Potato chips	50400	57600	64800	72000
French fries	21000	24000	27000	30000
Sales (m.Rial)	71400	81600	91800	102000

5. Annual nominal and practical capacity

Nominal capacity

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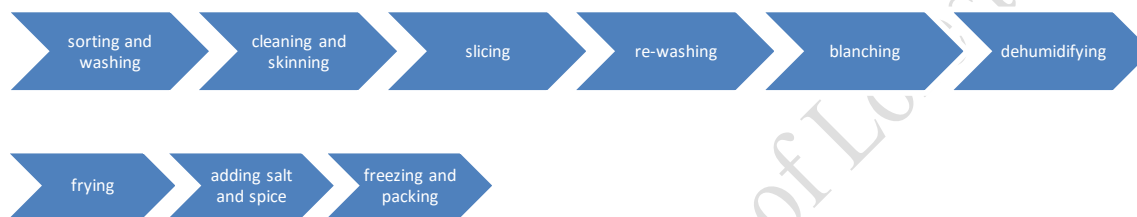
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The Nominal capacity is the production in ideal situation. This capacity is registered by the machineries manufacturers and is based on the engineering and designing principles. Nominal production of this product is 300 kg per hour and 720 ton annually in 300 days.

5.2. Practical capacity

The practical capacity is the maximum available capacity in typical situation which is considered as a percentage of the nominal one. Considering that machineries are not capable of 100% production, based on the time for repair, maintains and failure etc. their efficiency is 85% considered. The practical capacity for this unit is 600 ton annually.

6. Production procedure and technology



7. Investment costs

7.1. Fixed investment

Table4. Investment costs

No.	Description	Costs			
		Dollar	Rial	Rial	Total
1	Land	0	0	300	300
2	Landscaping	0	0	2115	2115
3	Building construction	0	0	16885	16885
4	Machineries and equipment	0	0	20826	20826
5	Branches and installation	0	0	3297	3297
6	Vehicles	0	0	3688	3688
7	Service and official equipment	0	0	200	200
8	Other and unpredicted costs (5% of above costs)	0	0	2501	2501
9	Pre-exploiting costs	0	0	693	693
10	Total fixed investment costs	0	0	53205	53205
11	Working capital in 100% of capacity	0	0	27811	27811
12	Total investment costs	0	0	81016	81016

7.2. Working capital

Table5. Working capital

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production unit

No.	Description	Day	1 st year	Base year
1	Raw and auxiliary materials	90	10331	14759
2	Current and produced products inventory	30	4285	5961
3	Debts	30	4345	6046
4	Cash	30	841	1047
Total			19801	27811

8. Production costs

Table6. Production costs

Description	Total costs (m.Rial)
Raw and packing material	59034
Energy	950
Repair, maintenance and spare parts	2415
Personnel's salary	4996
Unpredicted (6%)	4044
Depreciation	4940
Insurance	90
Sales and official costs	1020
Total operational and non-operational production costs	77486

9. Economic indices

Description	Amount-measurement scale
NPV	783296 m Rial
IRR	26.13%
PBP	5.7 years equal to 2021

PROJECT PROFILE – SUMMARY SHEET

Project Introduction

1. Project title: establishing potato chips and semi-fried frozen chips (French Fries)
2. Sector: foods and drinks Sub sector: fruit and vegetables processing and protecting from spoilage
3. Products/Services: producing potato chips and French fries
4. Location: ... Free zone <input type="checkbox"/> Economic special zone <input type="checkbox"/> Industrial Estate <input checked="" type="checkbox"/> Main Land <input type="checkbox"/>
5. Project description: Potato chips: the term “potato fried products” mostly refers to the French fries (fried slice). Chips is an American word referring to a thin cut of the potato in oil. In UK, they call this product Crisp. Chips is fried in oil with humidity up to 2% and it is yellow, and its taste is desirable with fragile texture. In addition, chips have to have less than 15% bleb, less than 10% partial defects and less than 5% major defects and its fat has to be 32-40%. Frozen semi-fried potato (French fries): French fries are the slices of the potato with different shapes passed the processing, semi-cooking, drying and semi-frying and finally, freezing processes. Producing French fries is one of the profitable opportunities in food industries investment area. Iran, due to particular geography, climate and climate diversity, is highly capable of potato farming and processing and this is the base of the occupational and entrepreneurial opportunities in Iran. In ready-to-cook products area, this product is of the low costs and high frequency of the potato, frequent consumption of fast foods in restaurants, its introduction to the family foods and finally suitable exporting markets to neighbor countries due to the governing conditions.
6. Annual capacity: 600 t

Project Status

7. Local / internal raw material access 100 %
8. Sale: 80% locally - Anticipated export market 20 %
9. Construction Period 2 Year Beginning of activity: 03/2016 In-site beginning of activity: 03/2017 End of project: 02/2018 Commercial activity beginning: 03/2018

Project Status

10. 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 concluded with local/foreign investor? Yes No
- Financing agreement concluded? Yes No
- Agreement with local / foreign contractor(s) concluded? 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
- Purchase agreement for machinery, equipments and know- how concluded? Yes No

Financial Structure

11. Financial Table

Description	Local Currency Required			Foreign Currency Required Million Dollar	Total Million Dollar
	Million Rials	Rate	Equivalent in Million Dollar		
Fix Capital	53205	34530	1.54	0	1.54
Working Capital	27811	34530	0.81	0	0.81
Total Investment	81016	34530	0.17	0	0.17

- Value of foreign equipment/machinery 0 million dollar
- Value of local equipment/machinery 0.6 million dollar
- Value of foreign technical know- how 0 million dollar
- Value of local technical knows- how 0 million dollar
- Net Present Value (NPV): 783296 million Rial for Year
- Internal Rate of Return (IRR) 26.13%
- Payback Period (PP) 5.7 Year (2021)

General Information

12. Project Type : Establishment Expansion and completion

13. Company Profile:

- Name (legal /natural persons): Sepinud Shargh institute of strategic studies
- Company Name: engineering consultation
- Address: unit 5, No. 3, Boostan 3 St., Pasdaran, Tehran
- Tel: 02122584901 Fax: 02122580343
- E-mail: info@sepinud.com Web site: www.sepinud.com
- Local entrepreneur : private sector public sector other

Please attach follow documents if available

- Pre-feasibility study ■
- Feasibility study □
- Legal permissions (establishment license, foreign currency quota, environment, etc) □

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