

10. Project Status:

- Feasibility study available? Yes No
- Required land provided? Yes No
- Legal permissions (establishment license, 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, equipment and technology concluded? Yes No

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Financial Structure

11. Finance

Description	Required Local Currency			Required Foreign Currency (Thousand Dollar)	Total in Thousand Dollar
	Million Rials	Rate	Equivalent in Thousand Dollar		
Fix Capital	56,333	87000 Rials for each Dollar	648	534	1,182
Working Capital	5,264		60	0	60
Total Investment	61,597		708	534	1,242

- Value of local equipment/machinery: 45 thousand dollars
- Value of foreign equipment/machinery: 509 thousand dollars
- Value of foreign technology: thousand dollars
- Value of local technology: Million dollars
- Net Present Value (NPV): **152,960** Million Rials for 10 Years, discount rate: 20%
- Internal Rate of Return (IRR): 47,38%
- Payback Period (PP): 50%

General Information

12. Project Type: Establishment Expansion and completion

13. Company Profile:

- Name (legal /natural persons):
- Current activity of company:
- Address:

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-Tel: Fax:
-E-mail: Web site:
-Legal structure of company: 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)

Plan name: Manufacturing of disposable dishes and vegetal biodegradable polymeric bags

Product introduction

The main goal of carrying out this plan is establishment of production unit of disposable dishes and vegetal biodegradable polymeric bags in Lorestan province with capacity of 912 tons per year.

Product ISIC Code is 2520512712 (and 8-digit code 21021124) from construction group of products of rubber and plastic (25) and sub groups of construction of a variety of plastic products (2520), a variety of plastic dishes and utensils of kitchen and dining room (2520512712), a variety of disposable plastic dishes (2520412473).

Other product ISIC Code of this plan is 2520512715 from construction group of products of rubber and plastic (25) and sub groups of construction of a variety of plastic products (2520), a variety of plastic products and pieces for transferring or packing of goods (2520312441), a variety of one-layer bags without any plastic tissue (2520412454).

Disposable and vegetal biodegradable polymeric dishes under subchapter 4823 of customs with the title of other paper, cardboard, cellulose fiber sheets cut in certain size and shape, other objects of paper pulp, paper, cardboard, cellulose fiber sheets with sub tariff 48237000 are imported and exported.

Its entry requirements are having permission of Ministry of commerce and Ministry of Industry, Mine and Trade, paying 10percent of entrance fees (tariff) in 2018 (customs 4% and business profit 6%).

Introduction of product applications

This unit is a production unit of a variety of disposable dishes and vegetal sheet that its final product is used in packing industry. In another words, the produced product is replaceable in all

packing industry which start to use oil plastic materials. Also, surplus vegetal sheets produced in this unit are sold to other factories in order to produce these dishes.

Vegetal polymers are used in agriculture, pharmacy, medicine industry. For example in medicine, they can be applied for disposable covering of surgery room and for coating smart pills in pharmacy industry and also in agriculture industry to produce pots of ecesis and agricultural films. So the applications of this product are so extensive.

Proposed places for plan

According to benefits of establishment in industrial estates and areas, industrial estates of Lorestan province are suggested for conducting the project.

Raw ,auxiliary,Consuming materials

The only raw material of this plan is vegetal granule and considering price inquiry, the costs of supplying the raw material of this plan in a year is as follows:

Raw ,auxiliary,Consuming materials cost

No	Raw , auxiliary and packing materials	Unit	Consumption rate per year	Spoilage	Sum of raw and consuming materials	Unit price (Rial)	Annual cost (m/r)
1	starch- based biodegradable polymer	ton	912,00	9,12	921,12	70,000,000	64,478,40
Total							64,478,40

Sales plan

The sales plan in the first 5 years as follow is considered in financial calculations.

Sales plan in the first 5 years

Description	First year	Second year	Third year	Forth year	Fifth year
Production percent	70%	80%	90%	90%	90%
herbal dishes (capacity/ton)	504	576	648	648	648
herbal dishes (sales/ m.r)	100800	115200	129600	129600	129600
herbal bags (capacity/ton)	134	154	173	173	173
herbal bags (sales/ m.r)	17741	20275	22810	22810	22810
Total (sales /ton	118541	135475	152410	152410	152410

Description	First year	Second year	Third year	Forth year	Fifth year
Production percent	70%	80%	90%	90%	90%
)					
Total (capacity /m.r)	638	730	821	821	821

Annual nominal and practical capacities

Annual production capacity of this unit is planned 912 tons based on 300 working days in a year. In respect of the number of working shifts, it should be explained that in regard to production unit of disposable and biodegradable dishes and bags, one working shift is necessary for machinery. Practical capacity of this plan, regarding the unpredicted factors of stop working and also repair and maintenance, is considered 821 tons with 90% efficiency of nominal capacity.

Production method and desired technology

Working steps in this method are:

1. Entering of granule
2. Gas removal of granule
3. Changing physical nature of granule in extruder
4. Turning granule into sheet
5. Changing the thickness of sheet in calendar system
6. Pressing the sheets
7. Rolling of the sheets
8. Inspecting of rolled sheets
9. Preheating of sheet in heating furnace of forming machine
10. Heating of the sheet to 120 degrees of centigrade in main heater
11. Molding the sheet
12. Forming the sheet
13. Cutting the sheet
14. Inspecting the sheet
15. Packing disposable dishes

The plan investment costs

The fixed plan investment costs is estimated to be 102,831 million Rials and the working capital is estimated to be 5,264 million Rials.

The plan investment costs

Description	carried (m.r)	Required				Total (million rials)
		currency (dollar)	rial equivalent	rial (m.r)	required total	
Land	0	0	0	2,800	2,800	2,800
Landscaping	0	0	0	1,018	1,018	1,018
Building	0	0	0	28,000	28,000	28,000
Machinery and equipment	0	509,000	44,283	3,932	48,215	48,215
Installations	0	0	0	10,271	10,271	10,271
Laboratory equipment and supplies	0	0	0	207	207	207
Vehicles	0	0	0	4,000	4,000	4,000
Workshop equipment	0	0	0	91	91	91
Service and administrative equipment	0	0	0	1,066	1,066	1,066
Unexpected and miscellaneous	0	0	2,214	2,569	4,783	4,783
Total fixed assets	0	509,000	46,497	53,954	100,451	100,451
Pre-exploitation costs	0	0	0	2,379	2,379	2,379
Total fixed investment costs	0	509,000	46,497	56,333	102,831	102,831
Working capital	0	0	0	5,264	5,264	5,264
Other assets	0	0	0	0	0	0
Total plan investment costs	0	509,000	46,497	61,597	108,094	108,094

The plan production costs

The annual production costs are estimated to be 93246,54 million Rials.

No	Description	Cost (million rials)	cost in practical capacity (million rials)
1	Raw, auxiliary and packing materials	64478,40	58030,56
2	Production salary and wage	11201,20	10865,16

No	Description	Cost (million rials)	cost in practical capacity (million rials)
3	Water, electricity, fuel and communication	715,14	657,93
4	Insurance	185,86	185,86
5	Repair and maintenance	4472,46	4114,67
6	Marketing and ads	1693,44	1557,96
7	Production unpredicted and miscellaneous	1621,06	1491,38
8	Depreciation	8878,99	8878,99
Total		93246,54	85782,50

Economic indices

Table 1. Economic indices

Description	Value-measurement scale
NPV (net present value)	152,960 million rials
IRR (internal rate of return)	47,38%
PBP (period of return of capital)	2 years

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