RUBBER FOOTWEAR

Introduction :

Rubber Footwears are more popular because of light weight, longer life, resistance to water and moisture and low price. Among the rubber footwears chappals are the most common variety.

The demand for chappals in India is presently more than 630 million pairs and the production is more than 350 million pairs, which leaves a demand, supply gap of 280 million pairs. Apart from this the demand is increasing at the rate of 4-5%.

The present annual demand in North Eastern Region is as follows :

State	**Demand in Lakh Pair**
Arunachal Pradesh	5.00
Assam	20.00
Manipur	11.00
Meghalaya	10.50
Mizoram	4.00
Nagaland	9.00
Tripura	14.50
Total	**174.00**

Process :

The natural rubber and other compounding ingredients are mixed in a two roll mixing mill. The stock is then sheeted out and cooled. After 24 hours maturation, it is pre-warmed in a mixing mill. The compound is then filled in the mould and cured in a hydraulic press for about 6-7 minutes at 145°C.

The sheets after moulding are subjected to post curing for 2-3 hours at 100°C. in a hot chamber to give dimensional stability to the sheet. Moulding of hawai straps are carried out in a screw press.

The soles are cut into different sizes, holes are drilled and then assembled.

Infrastructure :

Land

The unit may require about 200 m^2 developed land for setting up this project.

Building and Civil Work

About 100 Sq.Mtr. floor space is sufficient for running the plant conveniently.

Suggested Capacity :

A production capacity of 4,60,000 pair Hawai type Rubber Chapppals per annum is suggested for a viable unit.

Equipment :

The main equipment required are –

1. Dispersion kneader – 90 litre 1 No.
2. Mixing Machine 2 Nos.
3. Sheeting Mill. 1 No.
4. Conveyor and cutting machine 1 No.

5.	Hydraulic press – 250 T	1 No.
6.	Post cutting chamber	1 No.
7.	Cutting, Grinding and sealing machine	1 No.
8.	Air compressor	1 No.
9.	Boiler – 450 Kg. 14 Kg/Sq.m.	1 No.
10.	Work table & tools.	LS

Raw Materials

		(Qty.Kgs.)	
1.	Ethylene Vinyl Acetate	100	
2.	Natural Rubber	70	
3.	Zinc Oxide	8	@Rs15,000/-(per day the annual cost is estimated . at Rs 45.00 lakhs (Rs 15,000 X 300 days = Rs 45.00 lakhs).
4.	Stearic Acid	3	
5.	Calcium Carbonate	110	
6.	SBR 1953	12	
7.	China Clay	15	
8.	Sulphur	8	
9.	Titanium Dioxide	8	
10.	Pigment	5	
11.	Paraffin Wax	5	

Utilities :

Power

Total power requirement will be in the range of 40 to 50 KW.

Water

Water requirement is estimated at about 3.5 KL per day.

Locations :

Keeping in view the easy accessibility of raw materials and market centers the suggested locations are :

Assam	Lakhimpur, Barpeta, Haflong, Silchar, Karimganj, Nowgoan, Nalbari, Bongaigaon, Kokrajhar.
Meghalaya	Shillong,Tura.
Manipur	Imphal, Churachandpur.

Total Capital Requirement :

The project cost comprising fixed capital and margin money on working capital is Rs.30.74 lakhs.

		Rs. Lakhs
A.	**Fixed Capital :**	
	Land – 100 Sq.Mtr.	4.00
	Building	4.50
	Plant & Machinery	15.00
	Misc. Fixed Assets	2.50
	Preliminary & Pre-operative Expenses.	1.35
	Total :	**26.85**
B.	**Working Capital :**	

Sl. No.	Items	Norm	Margin Money	Total	Margin Money	Bank Finance
1.	Raw materials and packing materials.	3 months	25%	3.75	0.94	2.81
2.	Utilities	1 month	100%	0.42	0.42	--
3.	Wages & Salaries	1 month	100%	0.88	0.88	--
4.	Stock of finished goods.	6 days	25%	1.70	0.42	1.28
5.	Accounts Receivables.	7 days	25%	4.93	1.23	3.70
	Total			**11.68**	**3.89**	**7.79**

Note :

Working Capital may be financed as :

Bank Finance	Rs 7.79 lakhs.
Margin Money	Rs 3.89 lakhs.

Means of Financing :

The project cost of Rs.30.74 lakhs including margin money for working capital may be financed as under (merely indicative and subject to change by SFCs/Banks) :

	Rs. Lakhs
Promoter's contribution(25%)	: 7.68
Term Loan(75%)	23.06
Total :	**30.74**

Operating Expenses :

The annual operating expenses are estimated at Rs.86.57 lakhs as given below **:**

		Rs. lakhs
Raw materials	:	45.00
Utilities	:	5.00
Wages & salaries	:	10.50
Other Overheads	:	6.00
Selling expenses		
@ 10% of annual sales.	:	9.20
Interest	:	3.77
Depreciation.	:	7.10
Total	**:**	**86.57**

Sales Realisation :

Based on the present market prices and after providing for taxes and duties etc., selling prices assumed and annual sales realization are as below :

Item	Quantity	Price/Pc.	Sales realization/annum
Rubber Chappals.	4,60,000 pairs	Rs.20/-	92.00 lakhs.

Profitability :

Based on sales realization and the operating expenses, the profit at the level of 100% production would be Rs.5.43 lakhs (Rs.92.00 lakhs – Rs. 86.57 lakhs) per year. This works out to a return on investment of 18%. The plant would break-even at about 58% of the targeted annual production.

Break Even Point Analysis :

(At 100% Capacity Utilisation)

Sl. No.	**Particulars**	**Amount (Rs. In lakhs)**
A.	**Variable Cost**	
	1.Raw materials	45.00
	2.Utilities	5.00
	3.Interest on Working Capital	1.01
	Sub-Total (A)	**51.01**
B.	**Semi-Variable & Fixed Costs**	
	1.Wages & salaries	10.50
	2. Depreciation	7.10
	3. Administrative Expenses.	6.00
	Sub-Total (B)	**23.60**
C.	**Annual Revenue**	**92.00**
D.	**Contribution (C-A)**	**40.99**
E.	**B.E.P. $\frac{B}{D}$ X 100% = $\frac{23.60}{40.99}$ X 100%**	**58%**

Highlights :

The highlights of the project are as follows :

Total capital requirement	Rs. 30.74 lakhs
Promoter' contribution	Rs 7.68 lakhs
Annual sales realization	Rs. 92.00 lakhs
Annual operating expenses	Rs. 86.57 lakhs
Annual profit (Pre-tax)	Rs. 5.43 lakhs
Pre-tax return on sales	6%.
Break-Even Point	58%.
No. of persons employed.	12

Machinery Suppliers :

1. M/s. Elder Machanical Works,
   A-59, Shyam Nagar,
   New Delhi-110018.
2. M/s G.G.Engineering Works,
   5/1- B, Industrial Estate,
   Kirtinagar, New Delhi-110015
3. M/S Haria Engg. Works,
   Shankar Tekari Industrial Estate,
   Post Box No 643
4. M/S Kelachjandra Iron & Steel Works.
   ` Chingawanam,
   Kerala-686 537
5. M/s Major Machine Tools,
   B-XXX-94 Sherpur Khurd
   Byepass Road
   Ludhiana