#### Coconut/ Cashew Feni

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#### Introduction

Cashew Feni unlike Indian Made Foreign Liquor (IMFL) viz.; Brandy, Whisky, Rum, Gin etc, is not made by blending of spirits but is distilled exclusively from the pure fermented juice of cashew apples, without addition of any extraneous matter. Similarly, coconut feni is a product distilled from pure coconut taddy. It is estimated that about 22 lakhs tonnes of cashew apple fruits are available in the country. Most of the fruits are at present wasted and practically not utilised by the industry in any of the cashew growing tracts in India except Goa where it is used in the preparation of alcoholic beverages 'FENI'. In order to utilise the large quantity of cashew apple being produced by the growers, it is felt that units manufacturing 'Cashew Feni' and 'Cashew Arrack' can be encouraged. Since, this is a seasonal product, coconut taddy can also be distilled in the unit during off season to manufacture coconut feni and coconut arrack.

#### **Market Potential**

Cashew apple is a valuable source of sugar, vitamins and minerals. It is observed that the Vitamin-C content in Cashew apple is five times more than that in citrus fruits. The cashew feni has proved to be a foreign exchange earner in Goa. In view of the above, it is envisaged that there is a good scope for setting up export-oriented liquor making units in cashew and coconut growing areas. This will not only help the farmers to utilise the waste material but also generate more employmentopportunities in rural areas. There is a need to look for more market avenues for the product.

## **Basis and Presumptions**

- The unit proposes to work atleast 300 days per annum on single shift basis.
- The unit can achieve its full capacity utilisation during the third year of operation.
- Interest rate for total capital investment is calculated @ 15% per annum.
- The entrepreneur is expected to raise 20% to 25% of the capital as margin money.
- · The unit proposes to operate in rented building.
- · Costs of Machinery and Equipments are based on pricelist received from the reputed machinery manufacturers.

## Implementation Schedule

Complete project implementation may take about 8 to 10 months.

## **Technical Aspects**

#### **Process of Manufacture**

Cashew apple after washing is fed into juice extractor. The extracted juice is kept for 2 to 3 days to get it fermented. Fermentation is verified on the basis of formation of a film floating over the juice. From 50 litres of fermented juice, 35 litres of arrack is distilled which contains 40% alcohol. The Feni is obtained by distilling arrack, mixed with fermented juice in ratio of 1:2 which is a powerful form of cashew liquor. A mixture of 30 litres of arrack and 60 litres of juice produces 15 litres of Feni which contains 75% of alcohol. To get a litre of arrack, 12 kg to 15 kg cashew apple and for a litre of Feni, 30 to 35 kg cashew apple are required.

### **Quality Control and Standards**

Since the unit proposes to produce alcoholic drinks, licences from both Central and State Governments have to be obtained. The unit may also produce products as per the following I.S.I specifications:

Brandies	IS: 4450:1978
Country Spirit (Distilled)	IS: 5287:19784
Methods of sampling for alcoholic drinks	IS: 3753:1967
Methods of test for alcoholic drinks	IS: 3752:1967

#### **Motive Power**

10 KW Production Capacity (per annum) Cashew/coconut feni 65,000 bottles @ Rs. 130 per bottle, Annual sales is of Rs. 84,50,000/-.

## Financial Aspects Fixed Capital

#### **Land and Building**

SI. No.	Description	Amount (In Rs.)
1	Building (Rented) @ Rs 8000 pm	
2	Development charges including fixing up of wire, nets, spring doors, etc	65,000
Total		65,000

## **Machinery and Equipment**

SI. No.	Description	Qty.	Rate (In Rs.)	Amount (In Rs.)
1.	Bottle Washing machine with 1/4 HP Motor with Tanks	3 (Ind.)	16,000	48,000
2.	Counter-scale balance of 5 kg. capacity ordinary	2	2,000	4,000
3.	Distillation still of 750 kg capacity with condensor and other accessories	2	150,000	300,000
4.	Fermentation Tanks made of wood	15	2,000	30,000
5.	Fruitmill with 3 HP Motor	1	40,000	40,000
6.	HDPE Barrels of 200 lit cap.	3	8,000	24,000
7.	Hydraulic press with accessories	1	20,000	20,000
8.	Juice Storage tanks made of Stainless Steel 500 lit. cap.,	3	30,000	90,000
9.	Pilfer proof cap. sealing machine hand operated (Ind.)	2	12,000	24,000
10.	Platform weighing Balance of 300 kg capacity (Ind.)	1	12,000	12,000
Pre-op	20,000			
11.	Stainless steel Juice Pump with 1 HP Motor	1	24,000	24,000
12.	Steam generator coalor wood fired compl- ete with all accessories	1 Ind.	100,000	100,000
13.	Tubular heat exchanger vertical type	50,000	50,000	
Office I	100,000			
Installa	39,000			
Total				9,05,000
Total Fixed Capital				9,90,000

# Financial Analysis Cost of Production (per annum)

SI. No.	Description	Amount (In Rs.)
1.	Depreciation on Machinery and Equipment @ 10%	78,600
2.	Depreciation on Office Furniture @ 20%	20,000
3.	Depreciation on Tools @ 25%	_

4.	Recurring Expenditure	69,87,300
	Interest on capital investment @ 15%	4,10,500
5.	Total	74,96,400

## Sales per annum

Cashew/coconut feni 65,000 bottles @Rs. 130 bottle, Annual Sales

Rs. 84,50,000

## **Profit per annum**

Sales	84,50,000
Cost of Production	74,96,400
Profit	9,53,600

- Net Profit Ratio = Profit/annum × 100 Sales/annum = 9,53,600 × 100 84,50,000 = 11.29%
- Rate of Return = Profit/annum x 100
- Total Capital Investment = 9,53,600 x 100 27,36,825 = 34.85%

#### **Break-even Point**

Fixed Cost (per annum)	Amount (In Rs.)
Depreciation	98,600
Rent	96,000
Interest on investment	4,10,500
40% of salary and wages	1,24,200
40% of other expenses and Utilities excluding rent	139,200
Total	8,68,500

- Profit (per annum) Rs. 9,53,600
- Break-even Point = Fixed Cost/annum  $\times$  100 Fixed cost/annum + profit/annum = 8,68,500  $\times$  100 8,68,500 + 9,33,471 = 47.67%

#### **Addresses of Machinery and Equipment Suppliers**

- M/s. Gladwyn and Co. 251, D-Nauorji Road, Fort, Mumbai
- M/s. H and P Industries Near Mundipalam, Thrissur-6
- M/s. Jyothi Industries 31, Pampamahakavi Road, Bangalore-560004
- M/s. Motwane Manufacturing Co. Pvt. Ltd. 127, M.G. Road, Mumbai
- M/s. Hilden Packaging Machine Pvt. Ltd. Plot No. 101, Road No. 16, MIDC Chakala, Andheri, Mumbai-400 093

#### Source:

Ministry	of	Micro,	Small	&	Medium	Enterprises
Government			of			India
Nirman Bhavan, New Delhi - 110011						

#### Contact for more information

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