



# Doc 3.5: Feasibility Study Report on Coconut Coir Rope production in Jessore, Bangladesh

## 1. The Proposed Business

The proposed business is the manufacture of rope from coconut coir. Although there are several manufacturers in the area, the survey revealed that there is ample scope for the entry of new entrepreneurs if they can supply the desired quality.

The target women will manufacture ropes with coconut coir that is an easily available raw material in the target area. They will sell these in Noapara Bazar of Jessore or in surrounding areas. Despite the presence of several manufacturers, demand is high enough to make it possible for to get women to run the business of rope manufacture.

## 2. Product Description

The proposed product is rope which will be manufactured from coconut coir that is obtained from the husk of mature coconuts. The rope can be of varying thickness.

## 3. Market Demand Analysis

### 3.1 Estimated Demand

The chief market for coconut coir rope is the Noapara Bazar in Jessore. Coconut coir rope is also sold in Rupdia, Bashundia and Jessore town.

There are about 200 sellers or more in the above market. The market survey revealed that each shop buys rope worth Tk. 17,636.

In the project area, we held interviews in 11 shops that buy coconut rope and found that the average annual requirement is as follows:

	Annual Demand
Average annual purchase of Coconut rope per year	Tk. 17,636
Number of shops selling rope in the project area (Rupdia, Basundia and Naopara)	50
Estimated annual demand in the project area in Taka	Tk 8.81 lacs
Estimated projects production value per year	Tk 0.37 lacs

Proposed Project's Market Share	4%
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### 3.2 Competition

Coconut coin rope is manufactured by the villagers who live close to Manirampur. They sell the rope to shops at wholesale rate in Noapara Bazar. Some sell it at retail rate in 'haats' on the days that haats gather. Villagers of Dakatia and Zakia and Siannabai are involved in this manufacturing business.

Ropes are produced in traditional methods in different households of the above villagers. Roughly 50 households are involved in this business. They produce roughly 5 kg of rope in a week. Each kg sells at Tk 65-70. In a week, they sell rope worth Tk 350 and in a month Tk 1400

Competition will not be severe as the demand is much higher than the projected production level. The project's share is only 4% of total demand.

## 4. Technical Aspects

### 4.1 Location

The business can be set up in the village named Padmavilla which is nearby Jessore-Khulna highway.

### 4.2 Manufacturing Process/Equipment

The manufacturing process involved in the production of coconut coir rope is very simple. The women can set up the production unit in their homestead. They can process the coconut coir into rope with the aid of a tool that is much like a spinning wheel. The tool is operated manually and they will not require much effort to acquire the skill needed to work with it.

#### Instruments Requirements

The Following instruments are required:

- a. Hammer
- b. Punja
- c. Wood frame
- d. Scissor
- e. Brush
- f. Spinning frame

The estimated cost of the instrument is about Tk 2000.

### 4.3 Raw Materials

The chief raw material is coconut coir which is abundantly available in Noapara Bazar as well as all over Jessore. The target women will not face any difficulty in procuring supplies of coconut coir.

#### 4.4 Production Capacity

It is estimated that two women will work in this project and daily out put for 4 hours work will be 48 kg of rope. In the subsequently year women can increase production @ 20% per year.

### 5. Management Aspect

#### 5.1 Management

Two women can group together and start this business. They can use their homestead as production premise

#### 5.2 Profit Sharing

Two women may calculate the profit at the end of each month and decide about withdrawal of profit. Withdrawal must be on equal basis. Women should retain some profit for reinvestment in their business.

### 6. Financial Aspects

#### 6.1 Estimated Costs

Items	Amount/Taka
<b>A Fixed Investment</b>	
Tools	1,000
<b>Total Fixed Investment</b>	<b>1,000</b>
<b>B Pre-Operating Costs</b>	
(costs for setting up a business)	
Trade license	500
Market confirmation with buyers, etc.	500
<b>Total Pre-operating cost</b>	<b>1,000</b>
<b>Total Investment costs</b>	<b>2,000</b>
<b>C Working Capital (Operating cost per month)</b>	
Raw materials	1,500
Labour (cost not included as the women would work in the Project)	
Overhead Costs [rent, utilities, maintenance & repair of equipment, Transport, market promotion, miscellaneous	1,400
Depreciation of 5% or more equipment, furniture, machinery	100
<b>Total Working Capital (Operating Costs)</b>	<b>3,000</b>
<b>D Total Cost of Business (A+B+C)</b>	<b>5,000</b>
<b>6.2 FINANCING PLAN FOR THE BUSINESS</b>	

	Amount in Tk.
Total fixed investment (including Pre-operating costs)	2,000
Total operating costs / working capital	3,000
<b>Total Business cost</b>	<b>5,000</b>
Equity	
Need for outside Loan	5,000
Proposed Loan to be borrowed from: BRIDGE	
Loan Amount	5,000
Type of guarantee/collateral: Personal Guarantee	
Annual interest@ 15%	750
Repayment schedule [e.g. monthly loan repayment for 24 months]	208

### 6.3 Profitability Analysis Amount in taka

Estimated Monthly Sale	3,120
Number of Months	12
Estimated Annual Sales in Taka	<b>37,440</b>

Less:

#### Annual Operating Expenses

Raw material cost	14,400
Overhead including depreciation	
Marketing expenses	1,200
Interest on loan	750
<b>Total operating expenses</b>	<b>16,350</b>

Net Annual Profit in Taka	21,090
Number of Women Engaged in this Business	2
Profit per woman per year	10,545
Profit per woman per month	879

## 7. Business Risks

### Business Risks

The following risks are anticipated in the business:

- Shortage of raw materials during rainy season
- Difficulty in drying coconut coir during rainy season
- Poor recovery of credit sale

The women should have to take precaution to avoid risks as lished above. For example, they have to build up stock for the scarce months.

## 8. Area for Business Operation

The project should look for the following markets:

- Rupdia Bazaar
- Basundia Bazaar
- Jessore sadar

## **9. Training Needs**

The women should receive the following training:

- a. Making coconut coir rope

## **10. Post Training Support to women trainees**

The women will need the following post training support:

- a. Arrangement of start up capital
- b. Marketing services like development of linkages with mainstream businesses both at local level and regional level
- c. Post training technical assistance would be required in productivity enhancement, and quality control
- d. Refresher courses after one year of initial technical training
- e. Entrepreneurship development training
- f. Business counseling through development of business clinic

## **11. Final Observation & Conclusion**

The feasibility study report and related training proposal fully justify appropriateness of training provision to the selected women group. It is suggested that TREE community training organizer proceed with necessary training arrangements through TTC in Khulna under overall guidance of TREE implementing unit in Khulna.

## **ANNEX 3.5 (b) :**

### **Sample: Short Feasibility Report on Shrimp and Fish Feed in Jessore, Bangladesh**

**(ILO/UNDP TREE-related project in Bangladesh)**

#### **1.0 The Proposed Business**

The proposed project is to produce shrimp and fish feed.

#### **2.0 Product Description**

The feed will be in granular form and packed in different sizes.

#### **3.0 Market Demand Analysis**

##### **3.1 Estimated Demand**

There are approximately 300 shrimp farmers in around the project area. These farms buy fish feed from the market. The most popular brand is Saudi Fish feed (national brand) and a local fish feed named Jessore fish feed.

There are a number of fish farms in the project area. Particularly in the villages Narendrapur, Shakharigati and Gaidgasi. Total acreage of ponds in these area and a haor

located in Gaidgasi is approximately 90 acres. It is learnt that each farm spends Taka 25,000 as feed per acre of pond.

Total demand and the project's share are described below:

	Annual Demand
Average annual purchase in each farm having 1 acre size	Tk. 20,000
Requirement in 90 farms and Haor	Tk. 22.50 lacs
Estimated annual production of the proposed project	Tk. 324,000
Market share of the proposed project	15.5%

We also interviewed 4 wholesalers selling fish feed in project area. The average sale of fish feed is Taka 6.70 lacs per annum.

So, we can conclude that demand for fish feed is high.

### 3.2 Competition

Competition is very stiff in the open market. The women may find difficult to penetrate into market considering the giant players like Jessore Fish Feed and Bhairab Fish Feed. However the women have to look for niche market, particularly the BRIDGE borrowers those are running fish farms and the other small farmers in their neighborhoods.

### 3.4 Price

Competitors price	Taka 12 per kg (wholesale price)
Proposed price for the project	Taka 11.75 per kg (wholesale price)

### 3.5 Initial Production Capacity

The project will produce 15, 846 kg in the 1<sup>st</sup> year of operation.

### 3.6 Marketing Strategy

The project should adopt the following strategies:

- a. BRIDGE the partner NGO should promote the product among its beneficiary farmers
- b. Producers should approach their neighbour farmers who may be interested in keeping in mind that they are helping enterprising women of their locality.

## 4.0 Technical Aspects

### 4.1 Location

The project may be located in Narendrapur, Shakharigati and Gaidgasi, where a number of fish farms are in operation.

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#### 4.2 Manufacturing Process/Equipment

The project would need the following instruments:

Equipment	Qty	Value in Taka
Fish feed power operating machine	1	10,000
Fish meal hand machine	1	10,000

Estimated cost of equipment is Taka 2,000

#### 4.3 Raw Materials

The project would require the following raw materials to produce 50 kg per day:

Khail
Rice dust
Flour
Ata
Fish meal
Zinc dust
Molasses
Vitamin

Cost of above raw materials to produce 50kg in a day is Taka 750.

### 5.0 Management Aspect

#### 5.1 Management

The project would need services of 3 women.

#### 5.2 Profit sharing

All the 3 women will share the cost and profit

### 6.0 Financial Aspect

#### 6.1 Business cost

**Estimated costs**  
Items

Amount/Taka



A.	<b>Fixed Investment</b>	
	Machinery & Equipment	20,000
	Tools	500
	Furniture&Fixtures	2,500
	<b>Total Fixed Investment</b>	<b>22,500</b>
B.	Pre-Operating Costs	
	(costs for setting up a business)	
	Trade license	500
	Transportation of machinery etc.	100
	Rental advance	2,000
	Market confirmation with buyers, etc.	2,000
	<b>Total pre-operating cost</b>	<b>4,600</b>
	<b>Total Investment Costs</b>	<b>27,100</b>
C.	<b>Working Capital (Operating cost per month)</b>	
	Raw materials (for 15 days requirement)	9,346
	Wages not included as sponsoring women would work In the project Overhead costs [rent, utilities, maintenance & Repair of equipment, transport, market promotion, Miscellaneous	1,355
	Depreciation of 5% or more on equipment, furniture, machinery	375
	Total Working Capital (Operating Costs)	<b>11,076</b>
D	<b>Total Cost of Business (A+B+C)</b>	<b>38,176</b>

#### **FINANCING PLAN FOR THE BUSINESS**

	Amount in Tk.
Total fixed investment (including Pre-operating costs)	27,100
Total operating costs / working capital	11,076
<b>Total Business Cost</b>	<b>38,176</b>
Equity	
Need for outside Loan	38,176
Proposed Loan to be borrowed from: Bridge	
Loan Amount	
Type of guarantee/collateral: Personal Guarantee	38,176
Annual interest @ 15%	5,726
Repayment schedule [e.g. monthly loan repayments for 12 months	3,181

### **6.3 Profitability Analysis**

Estimated Annual sales in Qty	27,000 kg
Sale price per unit	12
Estimated Annual sales in Taka	<b>317,250</b>
Less:	
<u>Annual Operating Expense</u>	
Raw material cost	243,000
Rent	3,600
Utility Bills	2,400
Overhead including depreciation	375
Marketing expenses	3,600
Interest on loan	5,726
Misc. Expenses	1,000
Total Operating Expenses	259,701
Net Annual Profit in Taka	57,549
Repayment of loan	38,176
Number of Women Engaged in this Business	3
Profit per woman per year	19,183
Profit per woman per month	1,599
Profit per woman per month after payment of loan	1,758

## 7.0 Business Risks

The project is financially not rewarding. The project at small scale of operation will not be able to pay off the loan.

## 8.0 Area for business Operation

The women from the villages Narendrapur, Gaidgasa and Shakarigati may start this business and sell the products to the farmers in the neighborhoods.

## 9. Training Needs

The women should receive the following training:

- b. Manufacturing fish feed
- c. Preservation of feed
- d. Quality control and cost reduction methods

## 10.0 Post training supports to women Client

The following post training supports are necessary:

- g. Arrangement of start up capital

- h. Marketing services like development of linkages with mainstream businesses both at Jessore and Khulna
- i. Post training technical assistance like trouble shooting while the entrepreneurs implement their projects. Assistance would be required in productivity enhancement, quality control
- j. Refresher courses after one year of initial technical training
- k. Entrepreneurship development training
- l. Business counseling through development of business clinic
- m. Buyers sellers meet
- n. Support in procurement of tools and equipment and raw materials

#### **9.0 Final observation:**

The project is not feasible if it takes loan. However, the women can do the business with their equity money and kind support from the TREE Program.