



**UNIDO**

**UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION**

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INVESTMENT CO-OPERATIVE PROGRAMME BRANCH

INDUSTRIAL INVESTMENT PROJECT PROFILE

Country: NEPAL Project number: 32-1  
ISIC: 3211 Submission date: December 1983

Project title:

Integrated Textile Mill

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Project description

Part A - Information on the project

1. Technical aspects

1.1 Is this project a new enterprise or expansion/modernization of an existing one?

A new enterprise

1.2 Product(s) to be manufactured: ( Plant Capacity)

Fabric : 15 million metres

60% cotton (Poplin, sheeting, saris)

20% polyester (Suiting)

20% polyester/cotton (65/35 blend shirting)

Yarn : 350 tons

80% cotton

20% polyester/cotton

1.3 For which market? (Export, local, etc.):

Domestic market (150 million metres/year, growing at over 4% annually) can currently be covered by domestic production only to the extent of 20%. The proposed plant will increase local capacity to 30%. The need for imports will correspondingly be reduced.

1.4 Plant capacity and manufacturing process: As shown under 1.2.

- 1.) Spinning : 18500 spindles producing both for the plant's weaving needs and for sales as yarn
- 2.) Weaving : 650 looms
- 3.) Dyeing, printing, finishing : Commensurate with weaving capacity.

1.5 Availability of manpower, raw materials and utilities (power, water, etc.):

Manpower : 1300 direct + 200 indirect = 1500 total

Power : Installed capacity 3000 KW (No difficulties expected at planned location after 1986)

Water : Available at 1000 ft.

Raw material : Polyester imported; cotton now mostly imported, but more local production is expected in near future. (Cotton development project proceeding in

1.6 Plant location and availability of infrastructural facilities: same district)

Nepalgunj (Banke District, Bheri Zone, Mid-Western Nepal) near Indian border, about 20 km south of "East-West" Highway (under construction).

Enterprise will be largest industrial plant in the area. Some infrastructural facilities will need to be created.

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2. Financial aspects (all in \$ '000)

2.1 Total project cost, broken down into land, construction, installed equipment and working capital, indicating foreign exchange component:

	Local currency component <u>(in US\$)</u>	Foreign currency component <u>(in US\$)</u>	Total <u>(in US\$)</u>
Fixed investment:			
Land	130	-	130
Buildings & civil works	4,250	-	4,250
Machinery and equipment	-	10,760	10,760
Working capital	3,320	-	3,320
Pre-operational expenses	140	200	340
Interest during construction	400	600	1,000
Provision for contingencies	100	100	200
	<u>8,340</u>	<u>11,660</u>	<u>20,000</u>
Total	<u>8,340</u>	<u>11,660</u>	<u>20,000</u>

2.2 Proposed financial structure, indicating expected sources and terms of equity and loans:

	Local sources <u>(in US\$)</u>	Foreign sources <u>(in US\$)</u>	Total <u>(in US\$)</u>
Equity	2,700	2,500	5,200
Long-term loans	3,640	9,160	12,800
Medium-term loans	-	-	-
Short-term loans	2,000	-	2,000
	<u>8,340</u>	<u>11,660</u>	<u>20,000</u>
Total	<u>8,340</u>	<u>11,660</u>	<u>20,000</u>

## 2.3 Information on profitability and return on investment:

Based on 90% capacity utilization, sales revenue of \$ 22 million and net profits before tax of \$ 8.5 million are expected.

3. Foreign contribution desired

Indicate whichever is needed among the following:

- X - Equity participation
- X - Loans
- Licence and know-how
- Access to foreign markets
- Other

The information in this questionnaire is based on preliminary information currently at hand. As a result of the Solidarity Ministerial Meeting held in Nepal in November/December 1982, the Government of Pakistan has agreed to provide funding for a feasibility study which will be conducted by the Investment Advisory Center of Pakistan starting in November 1983.

4. Project study available:

- Pre-feasibility
- Feasibility
- Other
- None

By the time the Investment Promotion Meeting is being held (March 1984), and possibly even earlier, considerable detail information will be available.

The Pakistan Government will provide training for key personnel of the proposed textile mill; and hopes to be selected as the supplier for much of the required equipment.

5. Currency exchange rate used:

Date: Oct., 1983

Rate: US\$ 1 = N.Rs. 15.00 (Late 1983)



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INVESTMENT CO-OPERATIVE PROGRAMME BRANCH

INDUSTRIAL INVESTMENT PROJECT PROFILE

Country: NEPAL Project number: 32-3  
 ISIC: 3211 Submission date: December 1983

Project title:

Polywool (Petrochemical Fibre mixed with Wool)

Project description

Part A - Information on the project

1. Technical aspects

1.1 Is this project a new enterprise or expansion/modernization of an existing one?

The proposed project is new one of its kind.

1.2 Product(s) to be manufactured:

1 - Intermediate Product :

Plastic fibre made from (petrochemical)  
polypropylene and other plastic granules.

2 - Final Output :

Thread spun (various sizes) from the  
intermediate product.

1.3 For which market? (Export, local, etc.):

Proposed project has envisaged local market. At present Nepalese cotton, wool, synthetic and other fibre processing mills depend on India or overseas countries for their raw material requirement. The high price of raw material means high price of final products which if raised above a certain level may be come counter productive and hence can ruin the export market and industry itself. So proposed project has aimed to cater necessary raw materials as well as production of polywool.

1.4 Plant capacity and manufacturing process:

The total production capacity is to process 1250 MT granules per annum. The production is divided into two separate processes, firstly, making plastic fibre from petro-chemical polypropylene and other plastic granules which is one complete process in itself. In second process this plastic fibre is spun to make thread of required size for different purposes. Again, spinning of specific type of thread will be done by hand which means giving more work to local families on piece work basis.

1.5 Availability of manpower, raw materials and utilities (power, water, etc.):

- a. Total manpower - 184 (\*)
- b. Raw material has to be imported from overseas (1250 MT granules per year).
- c. Utilities (power and water) are available near the plant location.

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 (\*) It is expected that an additional 2500 jobs will be created in Nepal as a consequence of the plant's existence.

1.6 Plant location and availability of infrastructural facilities:

Plant location - Hetauda

All the infrastructural facilities are well developed near the plant location.

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2. Financial aspects

## 2.1 Total project cost, broken down into land, construction, installed equipment and working capital, indicating foreign exchange component:

	Local currency component (in US\$)	Foreign currency component (in US\$)	Total (in US\$)
Fixed investment:			
Land	40,000	-	40,000
Buildings	83,333	10,000	93,333
Machinery and equipment	-	800,000	800,000
Working capital	400,000	-	400,000
Pre-operational expenses )			
Interest during construction )			
Provision for contingencies )			
	all costs are included above		
	<u>523,333</u>	<u>810,000</u>	<u>1,333,333</u>

## 2.2 Proposed financial structure, indicating expected sources and terms of equity and loans:

	Local sources (in US\$)	Foreign sources (in US\$)	Total (in US\$)
Equity	472,000	328,000	800,000
Long-term loans	51,333	482,000	533,333
Medium-term loans			
Short-term loans	-	-	-
	<u>523,333</u>	<u>810,000</u>	<u>1,333,333</u>

## 2.3 Information on profitability and return on investment:

Return on equity after providing for depreciation and servicing of long term finance is expected around 24 %.

3. Foreign contribution desired

Indicate whichever is needed among the following:

- Equity participation
- Loans
- Licence and know-how
- Access to foreign markets
- Other

4. Project study available:

- Pre-feasibility
- Feasibility
- Other (a detailed project description report on the proposed project)
- None

5. Currency exchange rate used:

Date: 30 Nov. 1983

Rate: US\$ 1 = Rs. 15.00





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INVESTMENT CO-OPERATIVE PROGRAMME  
INDUSTRIAL INVESTMENT PROJECT QUESTIONNAIRE

Country:           NEPAL	*Project No.:       32-2
*ISIC:             3211	Date of Submission: Dec. 1983
<u>Project Title:</u> Cotton dyeing and printing	

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\* To be filled in by UNIDO

## 1. PROJECT DESCRIPTION

1.1 Is this a new project or an expansion/modernization of an existing project?

New

Expansion/modernization

Who initiated the project and when?

NIDC 1982

1.2 What are the products to be manufactured? Describe size, quality, and other important specifications of each product to be produced.  
The plant will (using yarn and cloth produced by others) undertake dyeing of cotton yarn and cloth; and printing of cotton cloth

1.3 Which background information is available on the project (e.g. pre-feasibility study)? Please list and give dates when they were carried out and by whom, including studies under preparation, or necessary updating:

None

(Pre-)feasibility study

Detailed project description

Technical study

Market study

Other

By ISC (July 1982)

## 2. PLANT CAPACITY

2.1 Specify plant capacity, i.e. what is the "rated" capacity (maximum production) of the plant?

(Dyeing 1,500 MT of grey yarn (2 shifts)

Per year { Dyeing 3.6 million metres of cloth (1 shift)

{ Printing 3.8 million metres of cloth (2 shifts)

2.2 On what basis has the proposed plant capacity been estimated?

Projected sales

Minimum economic size

Appropriate size, considering availability of local inputs, manageability, etc.

Other (specify)

2.3 Describe the annual production programme for each finished product (main product(s), by-product(s)) to be manufactured.

Production Quantity

Product	Unit	Per hour	Per shift	Shift/day	Working days/year	Quantity per year
see 2.1 (above)						

2.4 If this is an expansion/modernization project, give details on present production, bottlenecks, reason for modernization, expansion, etc.

### 3. RAW MATERIALS AND INTERMEDIATE PRODUCTS

- 3.1 Indicate in the table below the quantities per year and the sources of major raw materials and intermediate products which will be used. For imported materials indicate usual sources and specify import duties or other restrictions where applicable, and c.i.f. prices (in US\$ equivalent).

1 Raw materials/ Intermediate products	2 Quantity (per year)	SOURCE			
		3 Indigenous (local) raw materials	4 Intermediate prods. manufactured locally	5 Country from which imported	6 Price per unit \$
Yarn F. Dyeing	1,500 tons		✓		2,000
Cloth F. Dyeing	3.6x10 <sup>6</sup> m		} Processed in contract		-
Cloth F. Printing	3.8x10 <sup>6</sup> m				
Dyes + Inks	33 tons				11,000
Other Chemicals	(Yearly total)				110,000
Lubricants	(Yearly total)				3,300

Note: For imported items fill in columns 1, 2, 5 and 6 only. Relate quantities to figures given in para. 2 (previous page).

- 3.2 How large are the proven and exploitable reserves of the indigenous raw materials?

Most yarn and cloth used in Nepal is now imported in dyed/printed state. However about 50 million metres of cloth (about ¼ of demand) is now woven in the country. 300 MTY of yarn will soon become available from Hetauda Textile Industry; A spinning plant at Butwal (16,600 spindles) also will become operational soon(1986).

- 3.3 Describe the problems or restrictions, if any, you foresee in exploiting indigenous resources in the future.

None

- 3.4 What are the existing or planned capacities for local production of raw materials and intermediate products?

Large scale cotton planting is envisaged for the medium-term future

4. UTILITIES AND ENERGY

4.1 Indicate in the following table what utilities will be required.

Type	Quantity (per year)	Annual cost delivered at factory	
		Local currency	US\$ equivalent
Fuel, oil, etc.		100,000	6,667
Coal			
Gas			
Electricity		607,500	40,500
Water from river	600m <sup>3</sup> per shift	-	-
Other			

4.2 Is sufficient electricity already available at the proposed site to operate plant at full capacity?  Yes  No

If not, is additional supply planned for the future?  Yes  No

4.3 Is there information available on electricity supply failures and interruptions?  Yes  No No problems expected

4.4 Is water available in sufficient quantity at the proposed site?  Yes  No

4.5 Is the supply of water constant or are there seasonal fluctuations? Constant

4.6 Is the quality of the water at the proposed site satisfactory or are treatment facilities such as seawater desalination required? Water will be treated

4.7 Indicate what additional investment, if any, will be necessary in respect of the following items: US\$

Electricity generators \_\_\_\_\_

Transmission lines \_\_\_\_\_

Sub-stations \_\_\_\_\_

Water wells \_\_\_\_\_

Water pipes \_\_\_\_\_ included \_\_\_\_\_

Other (specify) \_\_\_\_\_

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5. LOCATION AND SITE

The following questions may only be answered if the site has already been selected or proposed:

5.1 Where is the factory to be built or expanded?

In the Kathmandu valley

5.2 Why was this location selected?

Close to raw materials and water

Close to markets

Convenient for transportation

Close to existing facilities

Other (specify)

5.3 Is there a Free Trade Zone or an Industrial Estate in which the factory could be built?

Yes; but not advantageous in this case.

Yes  No

5.4 How much land will be required?

6,500 square meters

How high is its estimated unit cost?

US\$ 5.33 per square meter

Is land readily available?

Yes  No

If not, indicate how you propose obtaining land:

5.5 Are adequate transportation facilities (road, rail, port) available at the proposed site?

Yes  No

5.6 Are post and telecommunication facilities available?

Yes  No

5.7 Are there housing facilities near the proposed site which could accommodate workers?

Yes  No

If not, are there plans to erect housing facilities?

Yes  No

5.8 What environmental impacts are expected to result from the project?

Do relevant environmental protection regulations exist?

Yes  No

Are existing waste disposal (effluent treatment) facilities adequate?

Yes  No

5.9 What additional investments may be required to overcome deficiencies in:

US\$

Transportation \_\_\_\_\_

Communication \_\_\_\_\_

Housing \_\_\_\_\_

Waste disposal \_\_\_\_\_

Environmental protection \_\_\_\_\_

Other (specify) \_\_\_\_\_

May be needed (not included in study)

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6. MANAGEMENT AND LABOUR

- 6.1 List estimated local and foreign personnel requirements and average annual wages, inclusive of all allowances and benefits, required when the proposed plant is operating at full capacity (in the case of expansion/modernization, indicating present and projected figures).

Administration and production	Local		Foreign	
	Number	Annual wage/ person (US\$ equivalent)	Number	Annual wage/ person (US\$ equivalent)
Management	3			
Clerical	2			
Technical supervision	9			
Skilled labour	25			
Unskilled labour	20			
Seasonal labour				
Other (e.g. marketing staff)	4			
Total annual payroll	63	30,000		

- 6.2 What staff training will be needed to ensure the effective operation including maintenance and repair of the project?

	No. of staff requiring training		Proposed duration	
	Locally	Abroad	Locally	Abroad
Management				
Technical supervision	see 6.3			
Skilled labour				
Clerical				
Marketing				

- 6.3 What type of assistance will be needed from foreign staff, and for how long? Indicate also the level and number of staff needed to provide the assistance foreseen.

Type of assistance	Level of foreign personnel	Number	Duration of assistance
Adviser to management			
Post is recommended in study, but its cost is not included in financial analysis			

7: LOCAL MARKET

- 7.1 Estimate the current annual demand in your country for the product(s) envisaged by this project:

Much larger than can be satisfied by this project

At what rate is the local market expected to expand over the next few years?

\_\_\_\_\_ % per year

- 7.2 How is this demand for each product being satisfied at present?

see 3.2 \_\_\_\_\_ % by local production

\_\_\_\_\_ % by importation

- 7.3 If imported, what are the current c.i.f. landed costs per unit of product(s) for each of the products? What are the duty tariffs, taxes and other costs?

- 7.4 If locally produced, what are the current selling prices per unit of product(s)?

- 7.5 What measures will be taken to capture (a share of) the local market?

- Requesting Government protection from imports
- Offering lower sales prices
- Manufacturing better quality products
- Offering better servicing
- Other (specify)

- 7.6 What percentage of your production is intended for sale on the local market?

100 %

- 7.7 Is there a sales organization existing or is it necessary to build one up (size, qualifications)?

Sales officer included in manning table.

## No export expected

8. EXPORT MARKET

8.1 Does your country already export the product(s) to be manufactured by the proposed plant?

Yes  No

If yes, to which countries?

8.2 Is your product(s) subject to any special importation quotas in your export markets?

Yes  No

If yes, specify.

8.3 Will your product(s) benefit from trade agreements between your country and proposed export markets?

Yes  No

If yes, how?

8.4 What is the proposed f.o.b. selling price per unit for your product(s) on the export market?

US\$ \_\_\_\_\_

(This information will be kept confidential.)

8.5 What percentage of your production is intended for exportation?

\_\_\_\_\_ %

8.6 Is there additional staff (number, qualification) needed for export marketing?



9. PROJECT IMPLEMENTATION (FACTORY ESTABLISHMENT)

9.1 Do you consider the technology envisaged appropriate for your project (labour or capital intensive, etc.)?  Yes  No

If not, have alternative technologies been investigated? Please specify.  Yes  No

9.2 What licences or technical know-how will be required for the project?

Some technical know-how (from joint venture partner)

9.3 Are plant and machine operators and erection (i.e. construction) personnel available locally?  Yes  No

If not, how do you expect to hire them?

9.4 What is the estimated time schedule required for the following activities?

	<u>Months</u>
Completion of additional studies	_____
Supply of machinery	_____
Planning, engineering, and erection of plant	_____
Completion of arrangements for supply of raw materials	_____
Completion of arrangements for marketing of finished products	_____
Start-up and initial operations	_____

Approximately how much time do you estimate will elapse from the time the investment decision is taken to the start-up of the plant?

1 to 2 years

10. INVESTMENT COST AND FINANCING

10.1 Estimate of investment costs (as of July 1982):  
(DATE)

	Local Currency	Foreign Currency	Total
	(expressed in US\$)		
Land	36,000		36,000
Site preparation			
Design and engineering			
Buildings and civil works	400,000	128,466	528,466
Auxiliary and service facilities e.g. Utilities Infrastructure			
Plant machinery and equipment		1,506,867	1,506,867
Pre-production capital expenditures	24,267	200,000	224,267
SUB-TOTAL	460,267	1,835,333	2,295,600
Contingencies	-	-	-
TOTAL FIXED INVESTMENT	460,267	1,835,333	2,295,600
Working capital	350,000	-	350,000
TOTAL INITIAL INVESTMENT	810,267	1,835,333	2,645,600

10.2 Proposed sources of finance:

	Local currency	Foreign currency	Total
	(expressed in US\$)		
Equity	357,000	343,000	700,000
Long term loans e.g. Suppliers' credits Official loans or credits (Source: )	103,267	1,492,333	1,595,600
Other (specify)			
Short and medium term loans	350,000	-	350,000
TOTAL FINANCING	810,267	1,835,333	2,645,600

10.3 What ownership (participation is equity)  
is foreseen for the project?

51 % local (private)  
% local (state)  
49 % foreign

11. NATIONAL ECONOMIC AND SOCIAL BENEFITS

11.1 How does this project fit into the Government's national economic development plan?

Approved by Government

11.2 What other projects, either operational or planned, have important technical or commercial backward, downstream, or horizontal linkages (connections) with the proposed project?

Linkages to local spinning and weaving industries; also to garment manufacture

11.3 Describe the direct and indirect social benefits which are expected to result from the proposed project.

- 1) Import substitution
- 2) Job creation
- 3) Skill creation

12. FOREIGN CO-OPERATION SOUGHT

Cash investment

- Equity .....

- Loans .....

Joint venture .....

Sub-contracting .....

Licencing .....

Sale of technology .....

Turnkey project .....

Equipment supply .....

Market access .....

Expertise

- Management .....

- Technical .....

- Training .....

- Marketing .....





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