Chapter 7. ECONOMIC AND SOCIAL EVALUATION

7 ECONOMIC AND SOCIAL EVALUATION

7-1 Economic Internal Rate of Return

In the former chapter a financial evaluation of the Project from the standpoint as an enterprise is carried out and the Project proves to be viable viewing from the profitability of an industry. In this chapter it is analyzed if the Project is feasible from the national standpoint of view. For that purpose, investment, operation cost and sales price estimated by using market price shall be converted into the economic cost and benefit by means of the accounted price (AP). As the prerequisite, machinery and equipment, spare parts, polyester fibre, auxiliary material are imported through the project life and only cotton is furnished domestically. Foreign currency labour means cost of foreign supervisors and other labours are skilled and unskilled labours to be procured in Nepal.

First of all, all items of benefit and cost through the project life are collected in table 1. Then, these items are broken down into trade goods, non-trade goods and transfer items in table 2. AP or shadow price of each items are obtained multiplying the conversion factors to costs and benefits expressed in market price in table 1, therefore, the standard conversion factor (SCF) and conversion factor for consumption (CFC) are calculted in the following.

7-1-1 Calculation of Standard Conversion Factor

SCF is calculated by the following formula.

$$SCF = \frac{M+X}{(M+Tm) + (X+Sx)}$$

M = Total amount of imported goods
X = Total amount of exported goods
Tm = Total amount of import duties
Sx = Total bounty on export deducted after export duties

According to the above, SCF for Nepal in 1983/84 is calculated as follows.

	M	Tm	X	Sx
1979/80	3,480.2	504.8	1,150.9	-62.6
1980/81	4,428.2	685.1	1,608.6	-69.5
1981/82	4,930.2	739.5	1,491.5	-42.2
1982/83	6,314.0	714.8	1,132.0	-25.1
1983/84	6,514.3	746.2	1,703.8	-30.4

(Unit NRs Million)

Source Economic Survey 1984-85 (MOF,1985)

Table 1 Cost & Benefit

Unit : NRs' Million

	-2/1	1	2	3	4	5	6	7	8	9	10	11	Total	%
I. CAPITAL COST														
1.Fixed Capital														
Land levelling cost	6.6												6.6	0.9
Construction cost	136.3												136.3	18.6
Machinery & equipment	469.1												469.1	64.1
Custom clearance	(10.5)													
Import duties	(4.2)													
Transport charge	(14.4)													
Erection cost	(3.8)													
Supervising fee	(25.5)													
Vehicles & furnitures	9.4												9.4	1.3
Engineering & training fee	67.7												67.7	9.3
Preoperational cost	7.6												7.6	1.0
Coutingency	34.8												34.8	4.8
Total	731.5												731.5	100.0
2.Working Capital														
		26.0	16.7										42.7	100.0
II. OPERATIONAL COST														
Raw material		31.0	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	586.0	18.8
Auxiliary material		21.2	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	396.2	12.6
Packing material		0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.2	0.1
Power charge		10.4	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	219.4	7.0
Fuel charge		12.4	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	260.4	8.3
Water charge		0.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	14.7	0.5
Labour expense		8.5	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	117.5	3.8
Maintainance expense		2.1	5.2	8.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	98.9	3.2
Depreciation & amortization		78.5	78.5	78.5	78.5	78.5	76.9	76.9	76.9	76.9	76.9	7.5	784.5	25.0
Overhead expense		2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	29.7	0.9
Financial charge		90.7	91.5	82.1	72.7	63.3	54.0	44.6	35.2	25.8	16.4	7.0	583.3	18.6
Income tax											6.9	31.2	38.1	1.2
Total		258.4	329.2	323.0	315.6	306.2	295.3	285.9	276.5	267.1	264.6	210.1	3,131.9	100.0
III. BENEFIT														
Sales revenue		180.3	365.8	365.8	303.8	303.8	303.8	303.8	303.8	303.8	303.8	303.8	3,342.3	96.8
Salvage benefit												110.2	110.2	3.2
Total		180.3	365.8	365.8	303.8	303.8	303.8	303.8	303.8	303.8	303.8	414.0	3,452.5	100.0

Table 2 Breakdown of Cost and Benefit

	Traded Goods			Non-traded Goods			Transfer Items	
	Imported Goods	Exported Goods	Foreign Labour	Domestic Goods	Skilled Labour	Unskilled Labour	Border	Domestic
I. CAPITAL COST								
1. Fixed Capital								
a) Land levelling				70	10	20		
b) Civil & building	62-T_1-Tt		8	24+Tt	2	4	T_1	
c) Machinery & equipment	94-T_1-Tt		5	Tt	1		T_1	
d) Vehicles & furnitures	92-T_1-Tt	8+Tt		Tt-Tt			T_1	
e) Engineering training fee			100					
f) Pre-operational cost	8-T_1-Tt	7+Tt		33+Tt-Tt	44	8	T_1	
g) Contingency	5% of 1-a, b, c, d, e, f							
2. Warking Capital Cash	About 3 months of operational cost			a, b, c, d, e, f,			g, h, i	
II. OPERATIONAL COST								
a) Raw material	49-T_1-Tt	51+Tt		Tt-Tt			T_1	
b) Auxiliary Material	100-T_1-Tt			Tt			T_1	
c) Packing material	100-T_1-Tt			Tt			T_1	
d) Power charge				100				
e) Fuel charge				100				
f) Water charge				100				
g) Labour cost					75	25		
h) Maintenance expense				Tt			T_1	
i) Overhead expense				100				
j) Tax, depreciation and interest								100
III. BENEFIT								
a) Yearly benefit (sales)	100-T_1-Tt		Tt				T_1	
b) Benifit at final point of project life								
Fixed capital	Sales value of 1-a,b							
Working Capital								

Average in 5 years	M5, 133. 4	Tm678. 1	X1, 417. 4	Sx-46. 0

$$SCF = \frac{5,133.4+1417.4}{(5,133.4+678.1) + (1,417.4-46.0)}$$

$$= 0.912$$

7-1-2 Conversion Factors to Be Used

1) Imported goods

In case imported goods are used for input (import of machinery and equipment or polyester fibre) ,it is necessary to evaluate it by the border price, therefore it is converted into the border price by means of SCF.

AP=c. i. f. + (T x SCF)

T=Inland transportation/distribution cost

In table 2 , T expressed as Tt is deducted from the cost of imported goods and provided for in the category of domestic goods, so costs counted up in the column of imported goods can be used as it is as economic price.

In other words, conversion factor for AP is 1 .

In the event that imported goods make replacement of import as output (that is, benefit of products sales) , it must be evaluated by border price.

AP=c. i. f. + (Tm - Tp) x SCF

Tm=Domestic transportation/distribution cost from the port to consumption area

Tp=Domestic transportation cost from the Project site to consumption area

In lot of cases, it is regarded Tm = Tp, but in case of this Project Tm$>$Tp because cargos are offloaded in Calcutta port. If it is regarded for convenience sake, however,that Tm is nearly equal to Tp, benefit is measured by AP = c. i. f. In this case of import replace ment, market price is used as it is as economical price, that is, the conversion factor is 1.

2) Exported goods

This is the case the input which would have been exported is input in the project, to which the raw cotton corresponds to.

AP=f. o. b. - (Tx x SCF) + (Tp x SCF)

Tx=Domestic transportation/distribution cost from production area to the export port

Tp=Domestic transportation/distribution cost from production area to the project site

In many cases it is regarded Tp = 0,

AP=f. o. b. - (Tx x SCF)

Tx expressed as Tt in table 2 being deducted from the export items and added to the domestic goods item, the export goods value in economic price is equal to f. o. b. price and conversion factor to the AP is 1.

3) Foreign currency labour

Conversion factor for the shadow price is 1.

4) Domestic goods

For the evaluation of non-trade goods, it must be shown by the border price by means of construction conversion factor, power conversion factor, etc.But, here a simple way is adopted, applying same SCF to all cases with the breakdown to be minimized.

5) Skilled labour, Unskilled labour

Skilled labour value evaluated by domestic market price and unskilled labour value evaluated by opportunity cost must be converted into the international market price, applying the conversion factor for consumption (CFC). It is possible to assume CFC is nearly equal to SCF but as in general CFC is considered to be smaller than SCF, it is assumed that CFC=0.900. In the event of the economical price of unskilled labour, it is assumed for the shadow wage rate (SWR) to be 0.7 and CFC×0.7 is used as the factor.

Using the above conversion factors, the conversion factor for each item of benefit and cost are shown in table 3 to 5.

Table 3 Conversion factors for capital cost

a. Land levelling cost

	Breakdown	C. factor	Product
Domestic goods	0.7	SCF (0.912)	0.638
Skilled labour	0.1	CFC (0.900)	0.090
Unskilled labour	0.2	0.7×CFC (0.900)	0.126

Conversion factor of a. 0.854

b. Construction cost

	Breakdown	C. factor	Product
Imported goods	0.62-0.03-0.09	1.000	0.50
Foreign currency labour	0.08	1.000	0.08
Domestic goods	0.24+0.09	SCF (0.912)	0.301
Skilled labour	0.02	CFC (0.900)	0.018

Unskilled labour	0.04	0.7×CFC (0.900)	0.025
Transfer item	0.03	0	0

Conversion factor of b 0.924

Note. T1, i.e. import duties are assumed as 3 % of domestic price of the imported goods.

Tt, i.e. domestic transport cost is assumed as 9 % of domestic price of the imported goods.

c. Machinery & equipment

	Breakdown	C. factor	Product
Imported goods	0.94-0.03-0.03	1.000	0.88
F.Currency labour	0.05	1.000	0.05
Domestic goods	0.03	SCF (0.912)	0.027
Skilled labour	0.01	CFC (0.900)	0.009
Transfer items	0.03	0	0

Conversion factor of c 0.966

Note. T1 is assumed as 3 % of domestic price of imported goods.

Tt is assumed as 3 % of domestic price of imported goods.

d. Vehicles

	Breakdown	C. factor	Product
Imported goods	0.92-0.03-0.03	1.000	0.86
Exported goods	0.08+0.03	1.000	0.10
Domestic goods	0.03-0.03	SCF (0.912)	0
T. items	0.03	0	0

Conversion factor of d 0.96

Note. T1, Tt is equal to c.

e. Engineering/Training fee

	Breakdown	C. factor	Product
F. currency labour	1	1.000	1.000

Conversion factor of e 1.000

f. Pre-operational cost

	Breakdown	C. factor	Product
Imported goods	0.08-0.03-0.03	1.000	0.02
Exported goods	0.07+0.03	1.000	0.1
Domestic goods	0.33+0.03-0.03	SCF (0.912)	0.301

Skilled labour	0.44	CFC (0.900)	0.396
Unskilled labour	0.08	0.7×CFC (0.900)	0.05
T. items	0.03	0	0

Conversion factor of f 0.867

Note. T1, Tt is equal to c.

g. Contingency

	Share in fixed capital	Breakdown	C. factor	Product
input a	0.9	0.009	0.854	0.008
b	18.6	0.195	0.924	0.180
c	64.1	0.673	0.966	0.650
d	1.3	0.014	0.960	0.013
e	9.3	0.098	1.000	0.098
f	1.0	0.011	0.867	0.010
Total	95.2	1.000		

Conversion factor of g 0.959

Working capital, Cash

	Share in fixed capital	Breakdown	C. factor	Product
Operational cost				
a	18.8	0.341	0.890	0.303
b	12.6	0.228	0.967	0.220
c	0.1	0.002	0.967	0.002
d	7.0	0.127	0.912	0.116
e	8.3	0.150	0.912	0.137
f	0.5	0.009	0.912	0.008
g	3.8	0.069	0.833	0.057
h	3.2	0.058	0.967	0.056
i	0.9	0.016	0.912	0.015
Total	55.2	1.000		

Conversion factor of Cash 0.914

Table 4 Conversion factors for operational cost

a. Raw material

	Breakdown	C. factor	Product

Imported goods	0.49-0.11-0.03	1.000	0.35
Exported goods	0.51+0.03	1.000	0.54
Domestic goods	0.03-0.03	SCF (0.912)	0
T. items	0.11	0	0

Conversion factor of a 0.89

Note. As for T1, Tt, same assumption as capital cost c. was made in operational cost.

b. c. Auxiliary/Packing material

	Breakdown	C. factor	Product
Imported goods	1.00-0.03-0.03	1.000	0.94
Domestic goods	0.03	SCF (0.912)	0.027
T. items	0.03	0	0

Conversion factor of b.c 0.967

d. e. f. Power/Fuel/Water charge

	Breakdown	C. factor	Product
Domestic goods	1.000	SCF (0.912)	0.912

Conversion factor of d.e.f 0.912

g. Labour cost

	Breakdown	C. factor	Product
Skilled labour	0.75	CFC (0.900)	0.675
Unskilled labour	0.25	0.7xCFC (0.900)	0.158

Conversion factor of g 0.833

h. Maintenance cost

	Breakdown	C.factor	Product
Imported goods	1.00-0.03-0.03	1.000	0.94
Domestic goods	0.03	SCF (0.912)	0.027
T. items	0.03	0	0

Conversion factor of h 0.967

i. Overhead cost

This is same as that of the above d,e,f, that is 0.912.

Table 5 Conversion factors for benefit

a. Every year's benefit (Sales revenue)

	Breakdown	C.factor	Product
Imported goods	1.00-0.03-0.03	1.000	0.94

Domestic goods	0.03	SCF (0.912)	0.027
T. items	0.03	0	0
	Conversion factor of a	0.967	

b. Benefit at final point of project, fixed capital

	Share in fixed capital	Breakdown	C.factor	Product	
Capital cost a	0.9		0.05	0.854	0.043
〃 b	18.6		0.75	0.924	0.878
Total	19.5		1.000		
	Conversion factor of b		0.921		

c. Benefit at final point of project, working capital

Same as above Working capital, cash, that is, 0.914

7-1-3 Calculation of NPV and ERR

Benefit and cost flow of table 1 by market price shall be changed into benefit and cost flow by economical price by using the above conversion factor for each item. This is indicated in table 6.

ERR is found out to be 17.1% from this. On the other hand, NPV is found out to be 226.7 million NRs, using the discount ratio of opportunity cost of capital (10.5%) and supposed interest rate for the long term debt to the Government companies (10.5%), resulting fully large figure of NPV. (Table 7)

7-2 Indirect Benefit of the Project

7-2-1 Foreign Currency Saving Effect

In case this Project is realized, it will replace the import of the fabrics equal to its production and sales quantity, saving like this Nepali foreign currency (though it is fairly doubtful the absolute import quantity of fabrics would be decreased, viewing from the chronic shortage of textile goods in domestic market). Here, the amount to replace the import is found after multiplying c.i.f. price (with transport cost from Calcutta) to the yearly productive quantity of the Project. The c.i.f. price is on the basis of mean price of fine and thick fabrics, because the productive amount of this two types of fabrics in the Project is fifty-fifty. From this amount, foreign portion of operatinal cost is deducted and raw cotton amount to replace the import is added to it(As import price of raw cotton, 35 cent/1bs,New York mardet price of SLM class

at the moment of July 1986 is adopted). The outcome of calculation in present value throughout the project life is shown in table 8. Total amount of foreign currency saving amounts to about 1,200 million rupees. As real project life is longer than that of financial purpose, further more currency will be saved. (In this calculation, foreign portion of capital cost is not considered and the saving is limited to the operation years)

7-2-2 Backward and Forward Effects

Textile goods are included in basic need items to change from the import into auto-sufficiency of HMG policy. For this purpose, the industrial structure of textile field should be accomplished as early as possible. Considering textile industry circumstances in Nepal where it has not been so long since only one integrated textile mill was established, what should be expedited is diffusion and betterment of technology and experience in textile field. This Project, as a model plant for textile technology because of posse-ssing the equipment with most advanced textile processing technology, can be expected to play an important role for bringing up technical experts and skilled technicians.

The Project site area is industrially less developed, so the foundation of the mill will bring about a regional development effect. Benefits generated in the area will be used again in the same area, causing thus recycle of benefit and small industries such as iron works, engineering works and service industries are expected to be founded.

Textile industry (spinning and weaving) has the features of labour intensive industry and has larger opportunities to employ unskilled labours, thus contributing to the increase of employment opportunities at the same time the equitability of income distribution by income increase of the low income class. It cannot be said there is no significance to attribute the reason of choice of a project to the contribution to the achievement of social justice like re-distribution of income, increment of employment and sovereign independence of textile industry.

Table 6 Cost & Benefit in Economical Price

Unit : NRs' Million

	-2/1	1	2	3	4	5	6	7	8	9	10	11	Total
I. CAPITAL COST													
1.Fixed Capital													
Land levelling cost	5.6												5.6
Construction cost	125.9												125.9
Machinery & equipment	453.2												453.2
Vehicles & furnitures	9.0												9.0
Engineering & training fee	67.7												67.7
Preoperational cost	6.6												6.6
Coutingency	33.4												33.4
Sub Total	701.4												701.4
2.Working Capital		23.8	15.3										39.1
Total	701.4	23.8	15.3										740.5
II. OPERATIONAL COST													
Raw material		27.6	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	521.6
Auxiliary material		20.5	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	383.5
Packing material		0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.2
Power charge		9.5	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	200.5
Fuel charge		11.3	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	237.3
Water charge		0.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	13.6
Labour expense		7.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	98.1
Maintainance expense		2.0	5.0	8.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	95.9
Overhead expense		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	27.5
Total		81.3	145.6	148.7	150.7	150.7	150.7	150.7	150.7	150.7	150.7	150.7	1,581.2
III. BENEFIT													
Sales revenue		174.4	353.7	353.7	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8	3,232.2
Salvage fixed capital												62.2	62.2
Salvage working capital												39.0	39.0
Total		174.4	353.7	353.7	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8	3,333.4

Table 7 Economical Internal Rate of Return

Unit: Border NRs' Million

YEAR	BENEFIT		COST		NET BENEFIT	DISCOUNT FACTOR 17.093%		DISCOUNT FACTOR 10.5%	NET PRESENT VALUE
			Capital Cost	Operational Cost					
	III		I	II	III-I-II				
-2/1	174.4		701.4		-701.4	1.000000	-701.400	1.000	-701.4
1	353.7		23.8	81.3	69.3	0.854022	59.184	0.905	62.7
2	353.7		15.3	145.6	192.8	0.729354	140.619	0.819	157.9
3	293.8			148.7	205.0	0.622884	127.691	0.741	151.9
4	293.8			150.7	143.1	0.331957	76.123	0.671	96.0
5	293.8			150.7	143.1	0.454303	65.011	0.607	86.9
6	293.8			150.7	143.1	0.387985	55.521	0.549	78.6
7	293.8			150.7	143.1	0.331347	47.416	0.497	71.1
8	293.8			150.7	143.1	0.282978	40.494	0.450	64.4
9	293.8			150.7	143.1	0.241669	34.583	0.407	58.2
10	293.8			150.7	143.1	0.206391	29.535	0.368	52.7
11	293.8	101.2		150.7	143.1	0.176262	25.223	0.333	47.7
			E.R.R. = 17.0930%			TOTAL = 0			226.7

Table 8 Foreign Currency Saving Effect

(Unit: NRs' 000)

Year/Item	Replacement of Textile Import (A)				Input Using Foreign Currency (B)								Replacement of Cotton Import(C)			Foreign Currency A-B+C
	Th. m	c.i.f. Border @40NRs	Discount Factor 10%	Present Value	Polyester Fibre	Auxiliary Material	Packing Material	Mainten. Expense	Fuel Oil, etc.	Repayment & Interest	Total	Present Value	Th. Lbs	NY Market ¢35 =7.4 NRs	Present Value	
1	5,000	200	1.000	200	15	21	2	2	13	81	134	134	1,400	10	10	76
2	10,000	400	0.909	364	27	38	3	5	26	156	255	232	2,500	19	17	149
3	10,000	400	0.826	330	27	38	3	8	26	148	250	207	2,500	19	16	139
4	10,000	400	0.751	300	27	38	3	9	26	140	243	182	2,500	19	14	132
5	10,000	400	0.683	273	27	38	3	9	26	132	235	161	2,500	19	13	125
6	10,000	400	0.621	248	27	38	3	9	26	124	227	141	2,500	19	12	119
7	10,000	400	0.564	226	27	38	3	9	26	115	218	123	2,500	19	11	114
8	10,000	400	0.513	205	27	38	3	9	26	107	210	108	2,500	19	10	107
9	10,000	400	0.467	187	27	38	3	9	26	99	202	94	2,500	19	9	102
10	10,000	400	0.424	170	27	38	3	9	26	91	194	82	2,500	19	8	96
11	10,000	400	0.386	154	27	38	3	9	26	83	186	72	2,500	19	7	89
Total		4,200		2,657							2,354	1,536		200	127	1,248

Chapter 8. CONCLUSION AND RECOMMENDATION

8. CONCLUSION AND RECOMMENDATION

8-1 Conclusion

It was clarified that 6th Plan started in 1980/81 has attained its target relating to growth rate of agricultural sector and to GDP, although non-agricultural sector growth rate and income per capita came short of its targets. Industrial investments in public and private sectors were driven in 6th Plan and some of national projects initiated their construction and operation in 6th Plan and remaining carried over to 7th Plan.

Regional development plan, an important national stragegy, has the primary objective of removing regional imbalances in economic and development phases by local resources movilization and exploitation of regional development potentials and is also taken over to the 7th Plan in harmony with Decentralization Policy.

Fibres and textiles are regarded as one of commodities of people's minimum basic needs and designated as one of items to be self-supplied at 2,000 A.D together with food, shelter, education, medicines. According to this, MOI has established a concrete guideline for its materialization.

Under such circumstances as above, detailed study has been developed in this Report to analyze the feasibility of an integrated textile mill on the basis of supply and demand forecast, production scale and items and technical design of the Project.

The survey and analysis on production items of new mill concludes that products should:

- Replace imported goods and avoid competition with products of existing mills.
- Be highly graded items with high quality and value added.
- Contribute to growing up of cotton cultivation as well as make the most of lint cotton expected to be surplus in the future.
- Be qualified as exportable items as well because of its excellent quality
- Be fabrics with easy care and durability to cope with future market needs. Items satisfying the above are not anything but cotton and polyester blended fabrics.

On the other hand, the production quantity and equipment scale to be considered are subject to the following conditions:

- Water and power to be required can be supplied enough and to spare.
- Manpower to be required must coincide with technical level and manpower recruitable near the project area.
- Production equipment aims at less costive and high-value added products.

Under the above conditions, the scale of mill to be run economically in financial and management aspects is that of about 10 million meters production per year of bleached and dyed fabrics.

The new mill producing the above items in above quantitie shall be much counted on by virtue of its modernized equipment and advanced production and control technology, avoiding the competition with products of existing mills. It is concluded that the new mill can be assessed as viable from the financial and economic viewpoints as well.

8-1-1 Site Location

It is recommended to locate the site about 2.5km west from Lamahi in Mid-Western area for its development to be promoted, not so far from cotton cultivation area in Terai.

Water for industrial use to be consumed about 100 ton per day can be collected from Arjun River passing by the site. Power, another factor more important, is supposed to receive 3,000KW through 33KV feeder from Lamahi Substation under construction.

Extension of the site area is about 47,000 square metre. The building to land ratio is about 42%.

8-1-2 Summary of the Project

1) Production quantities and items

For the new project to pay, it should produce high-quality and highly value added fabrics enabling import replacement by an integrated productive line from spinning to finishing.

Production quantity:

Bleached and dyed fabrics blended with 50% polyester and 50% cotton: 10,300,000 m/year

Production item:

Shirting (dobby)	2,560,000m/year
Shirting (plain)	2,740,000m/year
Suiting	2,620,000m/year
Twill	2,380,000m/year

Annual operating hours:

24hr x 330day=7,920hr

2) Production facility

This shall be the equipment enabling an economical and stable operation by dint of

advanced technology and easy control system in fairly simplified production process.

Spinning process: Ring spinning frame 15,360 spindles

Weaving process: Rapier weaving machine 308

Dyeing and finishing process: Bleaching and dyeing 1 set

3) Total area for the building

Production mill	16,337 m²
Auxiliary facilities	1,556 〃
Administrative office & canteen	825 〃
Staff houses, etc.	1,099 〃
Total	19,817 〃

8-1-3 Implementation Schedule

The longer the construction terms are, the larger the investment amount becomes, therefore, the construction schedule was established in as short term as possible. It shall be 2 years from the contract till the completion with the premise of a full turn key contract basis. It shall take one year from the start up after test run and acceptance of the mill till the full oneration.

8-2 Recommendation

Our views relating to matters to be considered during the construction and operation of the mill are shown below.

1) Cultivation of national cotton

The Project contemplates consuming as much as possible national cotton, expansion plan of which is aided by finance of ADB. Consumption of national cotton is calculated as 1,160 ton annually and normal and stable operation of the Project depends upon a great deal whether cotton is always supplied in required quantity with required quality, for which the endeavour to enhance the production and quality of cotton is required.

2) Procurement of polyester fibre

Fibre consumption at normal operation is 920 to 930 ton per year. Fibre manufacturer to place purchase orders had better be fixed in one, because if this is purchased from various makers, dyeing property of each fibre differs from each other, bringing about troublesome lot distinction in dyeing process and thus hindering normal and smooth operation of the mill. As for the procurement of polyester fibre, it will be suggested to procure from a manufacturer which can offer cheaper price and stable supply among fibre productive countries being proud of stability of quality and good spinning property and having surplus power of production quantity, considering well the table 9 of 3-3-2.

3) Achievement of efficient operation

It is necessary to increase the rate of operation by introducing continuous operation system by 3 shifts of 4 groups in order to upgrade the productivity and reduce the burden by depreciation. Because of that, no one should overlook the importance of education and instruction to labourers not only for their job but for their daily life.

4) Education and training of technical personnel

It is desirable that technical personnel of the Project take part in the Project from an earlier stage, that is, in the project planning and engineering work, because high technique of mill management is required immediately after the mill completion. In this connection, it is of paramount importance to keep on at least for 2 or 3 years education and training on required technology to them, even after the projected training period contemplated in the initial investment is over.

5) Possibility of the project implementation in parted stage

With a view to progress smoothly and effectively the training of technicians and to minimize difficulties of the control and management of the Project, the implementation of the project is suggested to be devided into 2 phases. Criteria for the division are many and if this is to be carried out, most effective way should be adopted with sufficient analysis in advance.

6) Diversification of product's design

In the event that it will become necessary to diversify the designs of products in order to add further values, once the mill is constructed and everything goes on smoothly, it is suggested to study the introduction of a yarn dyeing facility of small size.

7) Power supply

Most important key for the smooth operation of the Project is if power required for the mill can be supplied surely and as planned. It will be necessary to follow up and get confirmation of the completion of the Transmission line project in which Lamahi substation is involved.

8) Telecommunication media

UHF radio communication system will be necessary from the start of construction, since there is no telecommunication system such as telephone and telegramme in Lamahi area. Procedure or application for permission of the work for connecting this with the existing telephone line had better be started in earlier stage.

9) Taxation and incentives

It will be important for the Project to be favoured with further tax incentives.

Constructive measures are desirable against sales tax of 20% to be levied on from the first year of operation and excise duty to be levied on from the 4th year.

ANNEX

(Addition upon request of HMG/N)

1. Sensitivity Analysis (Case 9 — 1, 2)

   Using variables of new interest rate, sales revenue and tax system

2. Financial Statement

   Calculated by new Corporate Tax (for Government Corporations)

1. Sensitivity Analysis (Case 9－1, 2)

[Variable]

* Interest of long term loan 14.5%
* Sales revenue 24% up
* New excise duty and sales tax

[Premise]

* Interest during construction (14.5%)

(1) Case 9－1 (Loan 100%)

(Foreign)	1st year of construction	48,020
	(662,345×14.5%×1/2)	
	2nd year of construction	103,003
	(662,345+48,020×14.5%)	
	Total	151,023
(Local)	1st year of construction	5,000
	(68,961×14.5%×1/2)	
	2nd year of construction	10,724
	(68,961+5,000+14.5%)	
	Total	15,724

(Total) NRs 166,747,000

(2) Case 9－2 (Equity portion 20%)

(Foreign)	115,783
(Local)	15,724
(Total)	NRs 131,507,000

* Necessary fund (Table 1, 2)

Initial investment		NRs 731,306,000
Woking capital		26,307,000
Interest during construction	(Case 9－1)	166,747,000
〃	(Case 9－2)	131,507,000

Total	(Case 9 − 1)	924,090,000
	(Case 9 − 2)	888,850,000

(Loan of Case 9-2 is NRs 734,295,000)

* Repayment schedule (Table 3 to 7)

(Breakdown of loan principal)

(1) Case 9 − 1

(Foreign) 813,368 (Initial investment 662,345 + Interest during construction 151,023)

(Local) 110,722 (Initial investment 68,961 + Interest during construction 15,724 + Working capital 26,037)

(Total) NRs 924,090,000

(2) Case 9 − 2

(Foreign) 623,573 (Initial investment 507,790 + Interest during construction 115,783)

(Local) 110,722 (Initial investment 68,961 + Interest during construction 15,724 + Working capital 26,037)

(Total) NRs 734,295,000

* Sales revenue (Table 8 to 10)

(Premise)

- Sales profit is established as 70% and sales revenue is increased by 24%, taking account of recent retail price trend in the market.
- Excise duty is levied on from the first year of operation.
- Sales tax 20% is only levied on the polyester portion.

(Sales revenue)

1st year 193,350 + Sales of wastes 1,602 = NRs 194,952,000

2nd year 391,853 + 〃 3,205 = NRs 395,058,000

[Outcome]

Item \ Case	Case 9-1	Case 9-2
BEP in the 6th year	71.7 %	64.1 %
Payout period	4 year 6 months	4 year 3 months
DSR in the 6th year	1.36	1.71
IRR	18.3 %	20.5 %
NPV discounted by 10.5 % " 14.5 %	NRs 365,163,000 NRs 172,257,000	NRs 457,254,000 NRs 255,104,000
Return on sales revenue (On an average of 11 years) – Operating profit – Income before tax – Income after tax	 42.4 % 17.8 % 14.5 %	 42.4 % 23.2 % 19.9 %

Financial statements are shown in table 11 to 18.

2. Financial Statement

calculated by new Corporate Tax (for Government Corporations)

Refer to table 19 to 26.

Case-9-1

Table 1 Capital Requirement & Disbursement Schedule

Unit: NRs'000

Item	Before Operation (2 year)	After Operation (1st year)	Total	Ration (%)
Capital Requirement				
Fixed Capital				
Land Levelling	6,548		6,548	
Construction Cost	136,340		136,340	
Machinery & Equipment (F. O. B.)	394,310		394,310	
Ocean Freight	13,016		13,016	
Marine Insurance	3,360		3,360	
Vehicles & Auxiliary Equipment (C. I. F.)	9,396		9,396	
Clearance Charge	10,484		10,484	
Import Duty	4,194		4,194	
Inland Transportation	14,361		14,361	
Erection	3,755		3,755	
Supervising Fee	25,488		25,488	
Engineering Fee	37,575		37,575	
Training Fee	30,106		30,106	
Preoperational Cost	7,582		7,582	
Contingency	34,791		34,791	
Total Fixed Capital	731,306		731,306	96.6
Working Capital		26,037	26,037	3.4
TOTAL	731,306	26,037	757,343	100.0
Source of Fund				
Share Capital				
Long-term Loan (Foreign)	662,345		662,345	87.5
Long-term Loan (Local)	68,961	26,037	94,998	12.5
TOTAL	731,306	26,037	757,343	100.0
Interest During Construction	166,747		166,747	
Balance of Loan (TOTAL CAPITAL REQUIRED)	898,053	26,037	924,090	

Note : 1) Interest during construction is figured out on condition that total loans are borrowed in the middle of 1st year of the construction period.

2) Total amount of long-term loan is NRs 924,090,000 (NRs 757,343 + insterest 166,747).

Case 9-2

Table 2 Capital Requirement & Disbursement Schedule

Unit: NRs'000

Item	Before Operation (2 year)	After Operation (1st year)	Total	Ration (%)
Capital Requirement				
Fixed Capital				
Land Levelling	6,548		6,548	
Construction Cost	136,340		136,340	
Machinery & Equipment (F. O. B.)	394,310		394,310	
Ocean Freight	13,016		13,016	
Marine Insurance	3,360		3,360	
Vehicles & Auxiliary Equipment (C. I. F.)	9,396		9,396	
Clearance Charge	10,484		10,484	
Import Duty	4,194		4,194	
Inland Transportation	14,361		14,361	
Erection	3,755		3,755	
Supervising Fee	25,488		25,488	
Engineering Fee	37,575		37,575	
Training Fee	30,106		30,106	
Preoperational Cost	7,582		7,582	
Contingency	34,791		34,791	
Total Fixed Capital	731,306		731,306	96.6
Working Capital		26,037	26,037	3.4
TOTAL	731,306	26,037	757,343	100.0
Source of Fund				
Share Capital	154,555		154,555	20.0
Long-term Loan (Foreign)	507,790		507,790	80.0
Long-term Loan (Local)	68,961	26,037	94,998	
TOTAL	731,306	26,037	757,343	100.0
Interest During Construction	131,507		131,507	
Balance of Loan	708,258	26,037	734,295	
TOTAL CAPITAL REQUIRED	862,813	26,037	888,850	

Note : 1) Interest during construction is figured out on condition that total loans are borrowed in the middle of 1st year of the construction period.

2) Total amount of long-term loan is NRs 734,295,000 (NRs 602,788 + insterest 131,507).

Table 3 Repayment of Long Term Loans (Foreign currency)

Case 9-1

(Unit: NRs' 000)

Year	Installment	Principal	Principal Repayment	Balance Unpaid	Interest (14.5 %/Year)
-2/1		813,368	0	813,368	0
1			0	813,368	117,938.4
2	1		40,668.4	772,699.6	58,969.2
	2		40,668.4	732,031.2	56,020.7
3	3		40,668.4	691,362.8	53,072.3
	4		40,668.4	650,694.4	50,123.8
4	5		40,668.4	610,026.0	47,175.3
	6		40,668.4	569,357.6	44,226.9
5	7		40,668.4	528,689.2	41,278.4
	8		40,668.4	488,020.8	38,330.0
6	9		40,668.4	447,352.4	35,381.5
	10		40,668.4	406,684.0	32,433.0
7	11		40,668.4	366,015.6	29,484.6
	12		40,668.4	325,347.2	26,536.1
8	13		40,668.4	284,678.8	23,587.7
	14		40,668.4	244,010.4	20,639.2
9	15		40,668.4	203,342.0	17,690.8
	16		40,668.4	162,673.6	14,742.3
10	17		40,668.4	122,005.2	11,793.8
	18		40,668.4	81,336.8	8,845.4
11	19		40,668.4	40,668.4	5,896.9
	20		40,668.4	0	2,948.5
Total			813,368.0	–	737,114.8

Remarks : 1) The principal shall be repaid in 20 equal semi-annual installments after the grace period of 3 years.

2) Interest during construction shall be included in the principal.

Table 4 Repayment of Long Term Loans (Local currency)

Case 9-1

(Unit: NRs' 000)

Year	Installment	Principal	Principal Repayment	Balance Unpaid	Interest (14.5 %/Year)
-2/1		84,685	0	84,685	0
1		26,037	0	110,722	12,279.3
2	1		5,536.1	105,185.9	8,027.3
	2		5,536.1	99,649.8	7,626.0
3	3		5,536.1	94,113.7	7,224.6
	4		5,536.1	88,577.6	6,823.2
4	5		5,536.1	83,041.5	6,421.9
	6		5,536.1	77,505.4	6,020.5
5	7		5,536.1	71,969.3	5,619.1
	8		5,536.1	66,433.2	5,217.8
6	9		5,536.1	60,897.1	4,816.4
	10		5,536.1	55,361.0	4,415.0
7	11		5,536.1	49,824.9	4,013.7
	12		5,536.1	44,288.8	3,612.3
8	13		5,536.1	38,752.7	3,210.9
	14		5,536.1	33,216.6	2,809.6
9	15		5,536.1	27,680.5	2,408.2
	16		5,536.1	22,144.4	2,006.8
10	17		5,536.1	16,608.3	1,605.5
	18		5,536.1	11,072.2	1,204.1
11	19		5,536.1	5,536.1	802.7
	20		5,536.1	0	401.4
Total			110,722.0	—	96,566.3

Remarks : 1) The principal shall be repaid in 20 equal semi-annual installments after the grace period of 3 years.

2) Interest during construction shall be included in the principal.

Table 5 Repayment of Short Term Borrowing

Case 9-1

(Unit: NRs' 000)

Year	Installment	Principal	Principal Repayment	Balance Unpaid	Interest (17.0 %/Year)
1		25,000	0	25,000	0
2		10,000	0	35,000	4,250
3		0	0	35,000	5,950
4		0	25,000	10,000	5,950
5		0	10,000	0	1,700
Total		35,000	35,000	–	17,850

Table 6 Repayment of Long Term Loans (Foreign currency)

Case 9-2

(Unit: NRs' 000)

Year	Installment	Principal	Principal Repayment	Balance Unpaid	Interest (14.5 %/Year)
-2/1		623,573	0	623,573	0
1			0	623,573	90,418.1
2	1		31,179.6	592,393.4	45,209.0
	2		31,178.6	561,214.8	42,948.5
3	3		31,178.6	530,036.2	40,688.1
	4		31,178.6	498,857.6	38,427.6
4	5		31,178.6	467,679.0	36,167.2
	6		31,178.6	436,500.4	33,906.7
5	7		31,178.6	405,321.8	31,646.3
	8		31,178.6	374,143.2	29,385.8
6	9		31,178.6	342,964.6	27,125.4
	10		31,178.6	311,786.0	24,864.9
7	11		31,178.6	280,607.4	22,604.5
	12		31,178.6	249,428.8	20,344.0
8	13		31,178.6	218,250.2	18,083.6
	14		31,178.6	187,071.6	15,823.1
9	15		31,178.6	155,893.0	13,562.7
	16		31,178.6	124,714.4	11,302.2
10	17		31,178.6	93,535.8	9,041.8
	18		31,178.6	62,357.2	6,781.3
11	19		31,178.6	31,178.6	4,520.9
	20		31,178.6	0	2,260.4
Total				-	565,112.1

Remarks : 1) The principal shall be repaid in 20 equal semi-annual installments after the grace period of 3 years.

2) Interest during construction shall be included in the principal.

Table 7 Repayment of Long Term Loans (Local currency)

Case 9-2

(Unit: NRs' 000)

Year	Installment	Principal	Principal Repayment	Balance Unpaid	Interest (14.5 %/Year)
-2/1		84,685	0	84,685	0
1		26,037	0	110,722	12,279.3
2	1		5,536.1	105,185.9	8,027.3
	2		5,536.1	99,649.8	7,626.0
3	3		5,536.1	94,113.7	7,224.6
	4		5,536.1	88,577.6	6,823.2
4	5		5,536.1	83,041.5	6,421.9
	6		5,536.1	77,505.4	6,020.5
5	7		5,536.1	71,969.3	5,619.1
	8		5,536.1	66,433.2	5,217.8
6	9		5,536.1	60,897.1	4,816.4
	10		5,536.1	55,361.0	4,415.0
7	11		5,536.1	49,824.9	4,013.7
	12		5,536.1	44,288.8	3,612.3
8	13		5,536.1	38,752.7	3,210.9
	14		5,536.1	33,216.6	2,809.6
9	15		5,536.1	27,680.5	2,408.2
	16		5,536.1	22,144.4	2,006.8
10	17		5,536.1	16,608.3	1,605.5
	18		5,536.1	11,072.2	1,204.1
11	19		5,536.1	5,536.1	802.7
	20		5,536.1	0	401.4
Total			110,722.0	–	96,566.3

Remarks : 1) The principal shall be repaid in 20 equal semi-annual installments after the grace period of 3 years.

2) Interest during construction shall be included in the principal.

Table 8 Selling Cost and Price

(Unit: NRs/m)

Items		Manufac-turing Cost NRs/m (A)	Profit (70 %) A×0.3=(B)	Transporta-tion, etc. (3 %) A×0.03=(C)	Excise Duty (D)	Sales Tax (20 %) (E) A+B+ C+D×0.2×½	Sales Price (22.5 %) (F) A+B+C +D+E	Retail Price (22.5 %) F×1.225	Market Price of Imported Goods	Imported goods CIF Calcutta
1. Shirting	Bleached	12.01	8.41	0.36	2.94	2.37	26.09	31.96	60	20.5
Plain	Dyed	15.01	10.51	0.45	2.94	2.89	31.80	38.96	65	22.5
2. Shirting	Bleached	13.68	9.58	0.41	2.94	2.66	29.27	35.86	60	20.5
Dobby	Dyed	17.17	12.02	0.52	2.94	3.27	35.92	44.00	65	22.5
3. Suiting	Bleached	22.05	15.44	0.66	6.93	4.51	49.59	60.75	–	–
	Dyed	27.47	19.23	0.82	6.93	5.45	59.90	67.83	125 ~ 220	43 ~ 75
4. Twill	Bleached	24.97	17.48	0.75	7.14	5.03	55.37	67.83	–	–
	Dyed	31.09	21.76	0.93	7.14	6.09	67.01	82.09	125 ~	43 ~

Table 9 Yearly Sales Revenue for 1st Year after Operation

Item / Unit / Kind / Class		Production	Sales Price	Sales Amount	Excise Duty	Sales Tax	Net Sales Amount
		Th.m /Year	NRs/m	(A) NRs'000	(B) NRs'000		(A) – (B) NRs'000
Shirting Plain Bleached	A	130	26.09	3,392	403	325	2,755
	B, C	7	13.05	91			
Shirting Plain Dyed	A	1,176	31.80	37,397	3,640	3,578	31,165
	B, C	62	15.90	986			
Shirting Dobby Bleached	A	142	29.27	4,156	441	399	3,433
	B, C	8	14.64	117			
Shirting Dobby Dyed	A	1,278	35.92	45,906	3,954	4,398	38,757
	B, C	67	17.96	1,203			
Suiting Bleached	A	114	49.59	5,653	832	541	4,429
	B, C	6	24.80	149			
Suiting Dyed	A	1,026	59.90	61,457	7,484	5,886	49,704
	B, C	54	29.95	1,617			
Twill Bleached	A	114	55.37	6,312	857	604	5,017
	B, C	6	27.69	166			
Twill Dyed	A	1,059	67.01	70,964	7,961	6,790	58,090
	B, C	56	33.51	1,877			
Total		5,305	–	241,443	25,572	22,521	193,350

Table 10 Yearly Sales Revenue for 2nd-11th Year after Operation

Item / Unit / Kind / Class		Production	Sales Price	Sales Amount	Excise Duty	Sales Tax	Net Sales Amount
		Th.m /Year	NRs/m	(A) NRs'000	(B) NRs'000		(A) – (B) NRs'000
Shirting Plain Bleached	A	252	26.09	6,575	764	616	5,299
	B, C	8	13.05	104			
Shirting Plain Dyed	A	2,268	31.80	72,122	6,874	6,757	59,604
	B, C	70	15.90	1,113			
Shirting Dobby Bleached	A	266	29.27	7,786	806	729	6,368
	B, C	8	14.64	117			
Shirting Dobby Dyed	A	2,396	35.92	86,064	7,262	8,077	72,054
	B, C	74	17.96	1,329			
Suiting Bleached	A	260	49.59	12,893	1,857	1,209	10,025
	B, C	8	24.80	198			
Suiting Dyed	A	2,337	59.90	139,986	16,694	13,129	112,319
	B, C	72	29.95	2,156			
Twill Bleached	A	237	55.37	13,123	1,742	1,227	10,348
	B, C	7	27.69	194			
Twill Dyed	A	2,129	67.01	142,664	15,672	13,368	115,836
	B, C	66	33.51	2,212			
Total		10,458	–	488,636	51,671	45,112	391,853

Table 11 Proforma Income Statement (Case 9-1)

(Unit : NRs 1, 000)

		1	2	3	4	5	6	7	8	9	10	11	Total
A. Revenue		194,952.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	4,145,532.0
B. Raw Material Cost		30,973.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	585,703.0
C. Variable Cost		44,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	893,603.0
Auxiliary Material		21,182.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	396,452.0
Packing Material		160.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	2,990.0
Power Charge		10,429.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	219,009.0
Fuel Charge		12,413.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	260,683.0
Water Charge		689.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	14,469.0
D. Fixed Cost		79,757.0	85,229.0	88,384.0	90,448.0	90,448.0	88,836.0	88,836.0	88,836.0	88,836.0	88,836.0	31,515.0	909,961.0
Labour Expenses		8,541.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	117,551.0
Maintenance Expenses		2,100.0	5,220.0	8,375.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	99,207.0
Depreciation		66,450.0	66,434.0	66,434.0	66,434.0	66,434.0	64,822.0	64,822.0	64,822.0	64,822.0	64,822.0	7,501.0	663,797.0
Overhead Expenditure		2,666.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	29,406.0
E. Manufacturing Cost	(B+C+D)	155,603.0	225,575.0	228,730.0	230,794.0	230,794.0	229,182.0	229,182.0	229,182.0	229,182.0	229,182.0	171,861.0	2,389,267.0
F. Operating Profit	(A-E)	39,349.0	169,483.0	166,328.0	164,264.0	164,264.0	165,876.0	165,876.0	165,876.0	165,876.0	165,876.0	223,197.0	1,756,265.0
G. Financial Charges		130,217.7	134,893.2	123,193.9	109,794.6	92,145.3	77,045.9	63,646.7	50,247.4	36,848.1	23,448.8	10,049.5	851,531.1
Interest on L-T Debt (Forign 14.5%)		117,938.4	114,989.9	103,196.1	91,402.2	79,608.4	67,814.5	56,020.7	44,226.9	32,433.1	20,639.2	8,845.4	737,114.8
Interest on L-T Debt (Local 14.5%)		12,279.3	15,653.3	14,047.8	12,442.4	10,836.9	9,231.4	7,626.0	6,020.5	4,415.0	2,809.6	1,204.1	96,566.3
Interest on S-T Debt (Local 17%)			4,250.0	5,950.0	5,950.0	1,700.0							17,850.0
H. Amortization		16,681.0	16,674.0	16,674.0	16,674.0	16,674.0	16,674.0	16,674.0	16,674.0	16,674.0	16,674.0		166,747.0
I. Total Cost of Sales	(E+G+H)	302,501.7	377,142.2	368,597.9	357,262.6	339,613.3	322,901.9	309,502.7	296,103.4	282,704.1	269,304.8	181,910.5	3,407,545.1
J. Income before Tax	(F-G-H)	-107,549.7	17,915.8	26,460.1	37,795.4	55,444.7	72,156.1	85,555.3	98,954.6	112,353.9	125,753.2	213,147.5	737,986.9
K. Income Tax											50,301.3	85,259.0	135,560.3
L. Net Income	(J-K)	-107,549.7	17,915.8	26,460.1	37,795.4	55,444.7	72,156.1	85,555.3	98,954.6	112,353.9	75,451.9	127,888.5	602,426.6
M. Accumulated Income		-107,549.7	-89,633.9	-63,173.8	-25,378.4	30,066.3	102,222.4	187,777.7	286,732.3	399,086.2	474,538.1	602,426.6	602,426.6
N. Ratio (%)													
Operating Profit		20.2	42.9	42.1	41.6	41.6	42.0	42.0	42.0	42.0	42.0	56.5	42.4
Income before Tax		-55.2	4.5	6.7	9.6	14.0	17.6	21.7	25.0	28.4	31.8	54.0	17.8
Net Income		-55.2	4.5	6.7	9.6	14.0	17.6	21.7	25.0	28.4	19.1	32.4	14.5

Table 12 Proforma Balance Sheet (Case 9-1)

Unit:NRs' 000

ITEM/YEAR	-2/1	1	2	3	4	5	6	7	8	9	10	11
A. CURRENT ASSETS												
Cash		1,505.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Receivables		1,505.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Inventories		23,027.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0
Total		26,037.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0
B. CASH SURPLUS		581.3	2,510.1	19,669.2	23,163.6	59,307.3	120,550.4	195,192.7	283,234.3	384,675.2	449,214.1	492,194.6
C. FIXED ASSETS												
Building	150,032.0	142,519.0	135,018.0	127,517.0	120,016.0	112,515.0	105,014.0	97,513.0	90,012.0	82,511.0	75,010.0	67,509.0
Plant & Machinery	573,211.0	515,889.0	458,568.0	401,247.0	343,926.0	286,605.0	229,284.0	171,963.0	114,642.0	57,321.0		
Vehicles & Furnitures	8,063.0	6,448.0	4,836.0	3,224.0	1,612.0							
Total	731,306.0	664,856.0	598,422.0	531,988.0	465,554.0	399,120.0	334,298.0	269,476.0	204,654.0	139,832.0	75,010.0	67,509.0
D. DIFERRED ASSETS												
Deficit		107,549.7	89,633.9	63,173.8	25,378.4							
Interest d. Construction	166,747.0	150,066.0	133,392.0	116,718.0	100,044.0	83,370.0	66,696.0	50,022.0	33,348.0	16,674.0		
Total	166,747.0	257,615.7	223,025.9	179,891.8	125,422.4	83,370.0	66,696.0	50,022.0	33,348.0	16,674.0		
E. TOTAL ASSETS	898,053.0	949,090.0	866,681.0	774,272.0	656,863.0	584,520.3	564,267.4	557,413.7	563,959.3	583,904.2	566,947.1	602,426.6
F. CURRENT LIABILITIES												
Short-term Borrowing		25,000.0	35,000.0	35,000.0	10,000.0							
Total		25,000.0	35,000.0	35,000.0	10,000.0							
G. LONG TERM DEBT												
Foreign Loan	813,368.0	813,368.0	732,031.2	650,694.4	569,357.6	488,020.8	406,684.0	325,347.2	244,010.4	162,673.6	81,336.8	
Local Loan	84,685.0	110,722.0	99,649.8	88,577.6	77,505.4	66,433.2	55,361.0	44,288.8	33,216.6	22,144.4	11,072.2	
Total	898,053.0	924,090.0	831,681.0	739,272.0	646,863.0	554,454.0	462,045.0	369,636.0	277,227.0	184,818.0	92,409.0	
H. EQUITY												
Share Capital												
Retained Earnings						30,066.3	102,222.4	187,777.7	286,732.3	399,086.2	474,538.1	602,426.6
Total						30,066.3	102,222.4	187,777.7	286,732.3	399,086.2	474,538.1	602,426.6
I. TOTAL LIABILITIES & EQUITY	898,053.0	949,090.0	866,681.0	774,272.0	656,863.0	584,520.3	564,267.4	557,413.7	563,959.3	583,904.2	566,947.1	602,426.6

Table 13 Fund Statement (Case 9-1)

Unit: NRs' 000

	-2/1	1	2	3	4	5	6	7	8	9	10	11
SOURCES												
Profit before Interest		22,668.0	152,809.0	149,654.0	147,590.0	147,590.0	149,202.0	149,202.0	149,202.0	149,202.0	149,202.0	223,197.0
Depreciation and Amortization		83,131.0	83,108.0	83,108.0	83,108.0	83,108.0	81,496.0	81,496.0	81,496.0	81,496.0	81,496.0	7,501.0
Share Capital												
		25,000.0										
Loans	924,090.0	26,037.0	10,000.0									
Working Capital												
Total Sources	924,090.0	156,836.0	245,917.0	232,762.0	230,698.0	230,698.0	230,698.0	230,698.0	230,698.0	230,698.0	230,698.0	230,698.0
APPLICATIONS												
Fixed Capital	731,306.0											
Working Capital		26,037.0	16,686.0									
					25,000.0	10,000.0						
Repayment of Principal			92,409.0	92,409.0	92,409.0	92,409.0	92,409.0	920,409.0	92,409.0	92,409.0	92,409.0	92,409.0
Interest		130,217.7	134,893.2	123,193.9	109,794.6	92,145.3	77,045.9	63,646.7	50,247.4	36,848.1	23,448.8	10,049.5
Interest during Construction	166,747.0											
Income Tax											50,301.3	85,259.0
Total Applications	924,090.0	156,254.7	243,988.2	215,602.9	227,203.6	194,554.3	169,454.9	156,055.7	142,656.4	129,257.1	166,159.1	187,717.5
Net Cash Inflow	0	581.3	1,928.8	17,159.1	3,494.4	36,143.7	61,243.1	74,642.3	88,041.6	101,440.9	64,538.9	42,980.5
Accumulated Reserves	0	581.3	2,510.1	19,669.2	23,163.6	59,307.3	120,550.4	195,192.7	283,234.3	384,675.2	449,214.1	492,194.6

Table 14 Internal Rate of Return (Case 9-1)

YEAR	INVESTMENT	WORKING CAPITAL	INCOME BEFORE TAX	DEPRECIATION & AMORTIZATION	INTEREST	RECLAIMED WORKING CAPITAL	SALVAGE VALUE	NET CASH IN FLOW	DISCOUNT FACTOR	PRESENT VALUE OF NET CASH INFLOW
-2/1	924,090							-924,090	1.00000	-924,090
		25,000								
1		26,037	-107,549.7	83,131	130,217.7			54,762	0.84564	46,309
		10,000								
2		16,686	17,915.8	83,108	134,893.2			209,231	0.71512	149,625
3			26,460.1	83,108	123,193.9			232,762	0.60473	140,758
4			37,795.4	83,108	109,794.6			230,698	0.51139	117,977
5			55,444.7	83,108	92,145.3			230,698	0.43245	99,765
6			72,156.1	81,496	77,045.9			230,698	0.36570	84,366
7			85,555.3	81,496	63,646.7			230,698	0.30925	71,343
8			98,954.6	81,496	50,247.4			230,698	0.26152	60,332
9			112,353.9	81,496	36,848.1			230,698	0.22115	51,019
10			125,753.2	81,496	23,448.8			230,698	0.18701	43,143
11			213,147.5	7,501	10,049.5	77,723	67,509	375,930	0.15815	59,453

TOTAL = 0

INTERNAL RATE OF RETURN = 18.2532%

Table 15 Proforma Income Statement (Case 9-2)

(Unit:NRs1,000)

		1	2	3	4	5	6	7	8	9	10	11	Total
A. Revenue		194,952.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	395,058.0	4,145,532.0
B. Raw Material Cost		30,973.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	585,703.0
C. Variable Cost		44,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	893,603.0
Auxiliary Material		21,182.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	396,452.0
Packing Material		160.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	2,990.0
Power Charge		10,429.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	219,009.0
Fuel Charge		12,413.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	260,683.0
Water Charge		689.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	14,469.0
D. Fixed Cost		79,757.0	85,229.0	88,384.0	90,448.0	90,448.0	88,836.0	88,836.0	88,836.0	88,836.0	88,836.0	31,515.0	909,961.0
Labour Expenses		8,541.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	117,551.0
Maintenance Expenses		2,100.0	5,220.0	8,375.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	99,207.0
Depreciation		66,450.0	66,434.0	66,434.0	66,434.0	66,434.0	64,822.0	64,822.0	64,822.0	64,822.0	64,822.0	7,501.0	663,797.0
Overhead Expenditure		2,666.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	29,406.0
E. Manufacturing Cost	(B+C+D)	155,603.0	225,575.0	228,730.0	230,794.0	230,794.0	229,182.0	229,182.0	229,182.0	229,182.0	229,182.0	171,861.0	2,389,267.0
F. Operating Profit	(A-E)	39,439.0	169,483.0	166,328.0	164,264.0	164,264.0	165,876.0	165,876.0	165,876.0	165,876.0	165,876.0	223,197.0	1,756,265.0
G. Financial Charges		102,697.4	103,810.8	93,163.5	82,516.3	71,869.0	61,221.7	50,574.5	39,927.2	29,279.9	18,632.7	7,985.4	661,678.4
Interest on L-T Debt (Forign 10.5%)		90,418.1	88,157.5	79,115.7	70,073.9	61,032.1	51,990.3	42,948.5	33,906.7	24,864.9	15,823.1	6,781.3	565,112.1
Interest on L-T Debt (Local 12%)		12,279.3	15,653.3	14,047.8	12,442.4	10,836.9	9,231.4	7,626.0	6,020.5	4,415.0	2,809.6	1,204.1	96,566.3
Interest on S-T Debt (Local 17%)													
H. Amortization		13,157.0	13,150.0	13,150.0	13,150.0	13,150.0	13,150.0	13,150.0	13,150.0	13,150.0	13,150.0		131,507.0
I. Total Cost of Sales	(E+G+H)	271,457.4	342,535.8	335,043.5	326,460.3	315,813.0	303,553.7	292,906.5	282,259.2	271,611.9	260,964.7	179,846.4	3,182,452.4
J. Income before Tax	(F-G-H)	-76,505.4	52,522.2	60,014.5	68,597.7	79,245.0	91,504.3	102,151.5	112,798.8	123,446.1	134,093.3	215,211.6	963,079.6
K. Income Tax											53,637.3	86,084.6	139,721.9
L. Net Income	(J-K)	-76,505.4	52,522.2	60,014.5	68,597.7	79,245.0	91,504.3	102,151.5	112,798.8	123,446.1	80,456.0	129,127.0	823,357.7
M. Accumulated Income		-76,505.4	-23,983.2	36,031.3	104,629.0	183,874.0	275,378.3	377,529.8	490,328.6	613,774.7	694,230.7	823,357.7	823,357.7
N. Ratio (%)													
Operating Profit		20.2	42.9	42.1	41.6	41.6	42.0	42.0	42.0	42.0	42.0	56.5	42.4
Income before Tax		-39.2	13.3	15.2	17.4	20.1	23.2	25.9	28.6	31.2	33.9	54.5	23.2
Net Income		-39.2	13.3	15.2	17.4	20.1	23.2	25.9	28.6	31.2	20.4	32.7	19.9

Table 16 Proforma Balance Sheet (Case 9-2)

(Unit : NRs' 000)

ITEM/YEAR	0	1	2	3	4	5	6	7	8	9	10	11
A. CURRENT ASSETS												
Cash		1,505.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Receivables		1,505.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Inventories		23,027.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0
Total		26,037.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0
B. CASH SURPLUS		3,101.6	45,091.4	111,260.5	186,012.8	271,412.4	367,459.3	474,153.4	591,494.8	719,483.5	804,482.1	867,680.7
C. FIXED ASSETS												
Building	150,032.0	142,519.0	135,018.0	127,517.0	120,016.0	112,515.0	105,014.0	97,513.0	90,012.0	82,511.0	75,010.0	67,509.0
Plant & Machinery	573,211.0	515,889.0	458,568.0	401,247.0	343,926.0	286,605.0	229,284.0	171,963.0	114,642.0	57,321.0		
Vehicles & Furnitures	8,063.0	6,448.0	4,836.0	3,224.0	1,612.0							
Total	731,306.0	664,856.0	598,422.0	531,988.0	465,554.0	399,120.0	334,298.0	269,476.0	204,654.0	139,832.0	75,010.0	67,509.0
D. DIFERRED ASSETS												
Deficit		76,505.4	23,983.2									
Interest d. Construction	131,507.0	118,350.0	105,200.0	92,050.0	78,900.0	65,750.0	52,600.0	39,450.0	26,300.0	13,150.0		
Total	131,507.0	194,855.4	129,183.2	92,050.0	78,900.0	65,750.0	52,600.0	39,450.0	26,300.0	13,150.0		
E. TOTAL ASSETS	862,813.0	888,850.0	815,419.6	778,021.5	773,189.8	779,005.4	797,080.3	825,802.4	865,171.8	915,188.5	922,215.1	977,912.7
F. LONG TERM DEBT												
Foreign Loan	623,573.0	623,573.0	561,214.8	498,857.6	436,500.4	374,143.2	311,786.0	249,428.8	187,071.6	124,714.4	62,357.2	
Local Loan	84,685.0	110,722.0	99,649.8	88,577.6	77,505.4	66,433.2	55,361.0	44,288.8	33,216.6	22,144.4	11,072.2	
Total	708,258.0	734,295.0	660,864.6	587,435.2	514,005.8	440,576.4	367,147.0	293,717.6	220,288.2	146,858.8	73,429.4	
G. EQUITY												
Share Capit	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0
Retained Earnings				36,031.3	104,629.0	183,874.0	275,378.3	377,529.8	490,328.6	613,774.7	694,230.7	823,357.7
Total	154,555.0	154,555.0	154,555.0	190,586.3	259,184.0	338,429.0	429,933.3	532,084.8	644,883.6	768,329.7	848,785.7	977,912.7
H. TOTAL LIABILITIES & EQUITY	862,813.0	888,850.0	815,419.6	778,021.5	773,189.8	779,005.4	797,080.3	825,802.4	865,171.8	915,188.5	922,215.1	977,912.7

Table 17 Proforma Fund Statement (Case 9-2)

(Unit : NRs' 000)

	-2/1	1	2	3	4	5	6	7	8	9	10	11
SOURCES												
Profit before Interest		26,192.0	156,333.0	153,178.0	151,114.0	151,114.0	152,726.0	152,726.0	152,726.0	152,726.0	152,726.0	223,197.0
Depreciation and Amortization		79,607.0	79,584.0	79,584.0	79,584.0	79,584.0	77,972.0	77,972.0	77,972.0	77,972.0	77,972.0	7,501.0
Share Capital	154,555.0											
Loans	708,258.0	26,037.0										
Working Capital												
Total Sources	862,813.0	131,836.0	235,917.0	232,762.0	230,698.0	230,698.0	230,698.0	230,698.0	230,698.0	230,698.0	230,698.0	230,698.0
APPLICATIONS												
Fixed Capital	731,306.0											
Working Capital		26,037.0	16,686.0									
Repayment of Principal			73,430.4	73,429.4	73,429.4	73,429.4	73,429.4	73,429.4	73,429.4	73,429.4	73,429.4	73,429.4
Interest		102,697.4	103,810.8	93,163.5	82,516.3	71,869.0	61,221.7	50,574.5	39,927.2	29,279.9	18,632.7	7,985.4
Interest during Construction	131,507.0											
Income Tax											53,637.3	86,084.6
Total Applications	862,813.0	128,734.4	193,927.2	166,592.9	155,945.7	145,298.4	135,651.1	124,003.9	113,356.6	102,709.3	145,699.4	167,499.4
Net Cash Inflow	0	3,101.6	41,989.8	66,169.1	74,752.3	85,399.6	96,046.9	106,694.1	117,341.4	127,988.7	84,998.6	63,198.6
Accumulated Reserves	0	3,101.6	45,091.4	111,260.5	186,012.8	271,412.4	367,459.3	474,153.4	591,494.8	719,483.5	804,482.1	867,680.7

Table 18 Internal Rate of Return (Case 9-2)

YEAR	INVESTMENT	WORKING CAPITAL	INCOME BEFORE TAX	DEPRECIATION & AMORTIZATION	INTEREST	RECLAIMED WORKING CAPITAL	SALVAGE VALUE	NET CASH IN FLOW	DISCOUNT FACTOR	PRESENT VALUE OF NET CASH INFLOW
-2/1	862,813							-862,813	1.00000	-862,813
1		26,037	-76,505.4	79,607	102,697.4			79,762	0.82987	66,192
2		16,686	52,522.2	79,584	103,810.8			219,231	0.68868	150,980
3			60,014.5	79,584	93,163.5			232,762	0.57151	133,026
4			68,597.7	79,584	82,516.3			230,698	0.47427	109,413
5			79,245.0	79,584	71,869.0			230,698	0.39358	90,798
6			91,504.3	77,972	61,221.7			230,698	0.32662	75,351
7			102,151.5	77,972	50,574.5			230,698	0.27105	62,531
8			112,798.8	77,972	39,927.2			230,698	0.22494	51,893
9			123,446.1	77,972	29,279.9			230,698	0.18667	43,064
10			134,093.3	77,972	18,632.7			230,698	0.15491	35,737
11			215,211.6	7,501	7,985.4	42,723	67,509	340,930	0.12855	43,828

TOTAL = 0

INTERNAL RATE OF RETURN = 20.5015%

Table 19 Proforma Income Statement (Case 1)

(Unit:NRs1,000)

		1	2	3	4	5	6	7	8	9	10	11	Total
A. Revenue		180,341.0	365,755.0	365,755.0	303,750.0	303,750.0	303,750.0	303,750.0	303,750.0	303,750.0	303,750.0	303,750.0	3,341,851.0
B. Raw Material Cost		30,973.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	585,703.0
C. Variable Cost		44,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	893,603.0
Auxiliary Material		21,182.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	396,452.0
Packing Material		160.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	2,990.0
Power Charge		10,429.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	219,009.0
Fuel Charge		12,413.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	260,683.0
Water Charge		689.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	14,469.0
D. Fixed Cost		79,757.0	85,229.0	88,384.0	90,448.0	90,448.0	88,836.0	88,836.0	88,836.0	88,836.0	88,836.0	31,515.0	909,961.0
Labour Expenses		8,541.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	117,551.0
Maintenance Expenses		2,100.0	5,220.0	8,375.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	99,207.0
Depreciation		66,450.0	66,434.0	66,434.0	66,434.0	66,434.0	64,822.0	64,822.0	64,822.0	64,822.0	64,822.0	7,501.0	663,797.0
Overhead Expenditure		2,666.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	29,406.0
E. Manufacturing Cost	(B+C+D)	155,603.0	225,575.0	228,730.0	230,794.0	230,794.0	229,182.0	229,182.0	229,182.0	229,182.0	229,182.0	171,861.0	2,389,267.0
F. Operating Profit	(A-E)	24,738.0	140,180.0	137,025.0	72,956.0	72,956.0	74,568.0	74,568.0	74,568.0	74,568.0	74,568.0	131,889.0	952,584.0
G. Financial Charges		90,707.6	91,486.2	82,102.9	72,719.8	63,336.5	53,953.4	44,570.1	35,187.0	25,803.8	16,420.6	7,037.5	583,325.4
Interest on L-T Debt (Forign 10.5%)		80,883.1	78,860.9	70,772.6	62,684.3	54,596.0	46,507.7	38,419.4	30,331.1	33,242.9	14,154.5	6,066.3	505,518.8
Interest on L-T Debt (Local 12%)		9,824.5	12,625.3	11,330.3	10,035.5	8,740.5	7,445.7	6,150.7	4,855.9	3,560.9	2,266.1	971.2	77,806.6
Interest on S-T Debt (Local 17%)													
H. Amortization		12,088.0	12,088.0	12,088.0	12,088.0	12,088.0	12,088.0	12,088.0	12,088.0	12,088.0	12,088.0		120,880.0
I. Total Cost of Sales	(E+G+H)	258,398.6	329,149.2	322,920.9	315,601.8	306,218.5	295,223.4	285,840.1	276,457.0	267,073.8	257,690.6	178,898.5	3,093,472.4
J. Income before Tax	(F-G-H)	-78,057.6	36,605.8	42,834.1	-11,851.8	-2,468.5	8,526.6	17,909.9	27,293.0	36,676.2	46,059.4	124,851.5	248,378.6
K. Income Tax											18,423.8	49,940.6	68,364.4
L. Net Income	(J-K)	-78,057.6	36,605.8	42,834.1	-11,851.8	-2,468.5	8,526.6	17,909.9	27,293.0	36,676.2	27,635.6	74,910.9	180,014.2
M. Accumulated Income		-78,057.6	-41,451.8	1,382.3	-10,469.5	-12,938.0	-4,411.4	13,498.5	40,791.5	77,467.7	105,103.3	180,014.2	180,014.2
N. Ratio (%)													
Operating Profit		13.7	38.3	37.5	24.0	24.0	24.5	24.5	24.5	24.5	24.5	43.4	28.5
Income before Tax		-43.2	10.0	11.7	-3.9	-0.8	2.8	5.9	9.0	12.1	15.2	41.1	7.4
Net Income		-43.2	10.0	11.7	-3.9	-0.8	2.8	5.9	9.0	12.1	9.1	24.7	5.4

Table 20 Proforma Balance Sheet (Case 1)

Unit : NRs' 000

ITEM/YEAR	-2/1	1	2	3	4	5	6	7	8	9	10	11
A. CURRENT ASSETS												
Cash		1,505.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Receivables		1,505.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Inventories		23,027.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0
Total		26,037.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0
B. CASH SURPLUS		480.4	11,099.0	44,632.9	23,480.9	11,712.2	9,326.6	16,324.3	32,705.1	58,469.1	75,192.5	69,782.2
C. FIXED ASSETS												
Building	150,032.0	142,519.0	135,018.0	127,517.0	120,016.0	112,515.0	105,014.0	97,513.0	90,012.0	82,511.0	75,010.0	67,509.0
Plant & Machinery	573,211.0	515,889.0	458,568.0	401,247.0	343,926.0	286,605.0	229,284.0	171,963.0	114,642.0	57,321.0		
Vehicles & Furnitures	8,063.0	6,448.0	4,836.0	3,224.0	1,612.0							
Total	731,306.0	664,856.0	598,422.0	531,988.0	465,554.0	399,120.0	334,298.0	269,476.0	204,654.0	139,832.0	75,010.0	67,509.0
D. DIFERRED ASSETS												
Deficit		78,057.6	41,451.8		10,469.5	12,938.0	4,411.4					
Interest d. Construction	120,880.0	108,792.0	96,704.0	84,616.0	72,528.0	60,440.0	48,352.0	36,264.0	24,176.0	12,088.0		
Total	120,880.0	186,849.6	138,155.8	84,616.0	82,997.5	73,378.0	52,763.4	36,264.0	24,176.0	12,088.0		
E. TOTAL ASSETS	852,186.0	878,223.0	790,399.8	703,959.9	614,755.4	526,933.2	439,111.0	364,787.3	304,258.1	253,112.1	192,925.5	180,014.2
F. LONG TERM DEBT												
Foreign Loan	770,315.0	770,315.0	693,282.6	616,251.2	539,219.8	462,188.4	385,157.0	308,125.6	231,094.2	154,062.8	77,031.4	
Local Loan	81,871.0	107,908.0	97,117.2	86,326.4	75,535.6	64,744.8	53,954.0	43,163.2	32,372.4	21,581.6	10,790.8	
Total	852,186.0	878,223.0	790,399.8	702,577.6	614,755.4	526,933.2	439,111.0	351,288.8	263,466.6	175,644.4	87,822.2	
G. EQUITY												
Share Capital												
Retained Earnings				1,382.3				13,498.5	40,791.5	77,467.7	105,103.3	180,014.2
Total				1,382.3				13,498.5	40,791.5	77,467.7	105,103.3	180,014.2
H. TOTAL LIABILITIES & EQUITY	852,186.0	878,223.0	790,399.8	703,959.9	614,755.4	526,933.2	439,111.0	364,787.3	304,258.1	253,112.1	192,925.5	180,014.2

Table 21 Proforma Fund Statement (Case 1)

Unit : NRs' 000

	-2/1	1	2	3	4	5	6	7	8	9	10	11
SOURCES												
Profit before Interest		12,650.0	128,092.0	124,973.0	60,868.0	60,868.0	62,480.0	62,480.0	62,480.0	62,480.0	62,480.0	131,889.0
Depreciation and Amortization		78,538.0	78,522.0	78,522.0	78,522.0	78,522.0	76,910.0	76,910.0	76,910.0	76,910.0	76,910.0	7,501.0
Share Capital												
Loans	852,186.0	26,037.0										
Working Capital												
Total Sources	852,186.0	117,225.0	206,614.0	203,459.0	139,390.0	139,390.0	139,390.0	139,390.0	139,390.0	139,390.0	139,390.0	139,390.0
APPLICATIONS												
Fixed Capital	731,306.0											
Working Capital		26,037.0	16,686.0									
Repayment of Principal			87,823.2	87,822.2	87,822.2	87,822.2	87,822.2	87,822.2	87,822.2	87,822.2	87,822.2	87,822.2
Interest		90,707.6	91,486.2	82,102.9	72,719.8	63,336.5	53,953.4	44,570.1	35,187.0	25,803.8	16,420.6	7,037.5
Interest during Construction	120,880.0											
Income Tax											18,423.8	49,940.6
Total Applications	852,186.0	116,744.6	195,995.4	169,925.1	160,542.0	151,158.7	141,775.6	132,392.3	123,009.2	113,626.0	122,666.6	144,800.3
Net Cash Inflow	0	480.4	10,618.6	33,533.9	-21,152.0	-11,768.7	-2,385.6	6,997.7	16,380.8	25,764.0	16,723.4	-5,410.3
Accumulated Reserves	0	480.4	11,099.0	44,632.9	23,480.9	11,712.2	9,326.6	16,324.3	32,705.1	58,469.1	75,192.5	69,782.2

Table 22 Internal Rate of Return (Case 1)

YEAR	INVESTMENT	WORKING CAPITAL	INCOME BEFORE TAX	DEPRECIATION & AMORTIZATION	INTEREST	RECLAIMED WORKING CAPITAL	SALVAGE VALUE	NET CASH IN FLOW	DISCOUNT FACTOR	PRESENT VALUE OF NET CASH INFLOW
-2/1	852,186							-852,186	1.000000	-852,186
1		26,037	-78,057.6	78,538	90,707.6			65,151	0.887511	57,822
2		16,686	36,605.8	78,522	91,486.2			189,928	0.787677	149,602
3			42,834.1	78,522	82,102.9			203,459	0.699072	142,233
4			-11,851.8	78,522	72,719.8			139,390	0.620434	86,482
5			-2,468.5	78,522	63,336.5			139,390	0.550643	76,754
6			8,526.6	76,910	53,953.4			139,390	0.488702	68,120
7			17,909.0	76,910	44,570.1			139,390	0.433728	60,457
8			27,293.0	76,910	35,187.0			139,390	0.384939	53,657
9			36,676.2	76,910	25,803.8			139,390	0.341638	47,621
10			46,059.4	76,910	16,420.6			139,390	0.303207	42,264
11		124,851.5	7,501	7,037.5	42,723	67,509		249,622	0.269100	67,173

TOTAL = 0

INTERNAL RATE OF RETURN = 12.6746%

Table 23 Proforma Income Statement (Case 2)

(Unit : NRs 1, 000)

		1	2	3	4	5	6	7	8	9	10	11	Total
A. Revenue		180,341.0	365,755.0	365,755.0	303,750.0	303,750.0	303,750.0	303,750.0	303,750.0	303,750.0	303,750.0	303,750.0	3,341,851.0
B. Raw Material Cost		30,973.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	55,473.0	585,703.0
C. Variable Cost		44,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	84,873.0	893,603.0
Auxiliary Material		21,182.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	37,527.0	396,452.0
Packing Material		160.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	2,990.0
Power Charge		10,429.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	20,858.0	219,009.0
Fuel Charge		12,413.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	24,827.0	260,683.0
Water Charge		689.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	1,378.0	14,469.0
D. Fixed Cost		79,757.0	85,229.0	88,384.0	90,448.0	90,448.0	88,836.0	88,836.0	88,836.0	88,836.0	88,836.0	31,515.0	909,961.0
Labour Expenses		8,541.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	10,901.0	117,551.0
Maintenance Expenses		2,100.0	5,220.0	8,375.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	10,439.0	99,207.0
Depreciation		66,450.0	66,434.0	66,434.0	66,434.0	66,434.0	64,822.0	64,822.0	64,822.0	64,822.0	64,822.0	7,501.0	663,797.0
Overhead Expenditure		2,666.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	2,674.0	29,406.0
E. Manufacturing Cost	(B+C+D)	155,603.0	225,575.0	228,730.0	230,794.0	230,794.0	229,182.0	229,182.0	229,182.0	229,182.0	229,182.0	171,861.0	2,389,267.0
F. Operating Profit	(A-E)	24,738.0	140,180.0	137,025.0	72,956.0	72,956.0	74,568.0	74,568.0	74,568.0	74,568.0	74,568.0	131,889.0	952,584.0
G. Financial Charges		72,675.7	73,905.2	66,325.0	58,745.1	51,165.0	43,585.1	36,005.0	28,425.0	20,845.0	13,265.0	5,685.1	470,626.2
Interest on L-T Debt (Forign 10.5%)		62,851.2	61,279.9	54,994.7	48,709.6	42,424.5	36,139.4	29,854.3	23,569.1	17,284.1	10,998.9	4,713.9	392,819.6
Interest on L-T Debt (Local 12%)		9,824.5	12,625.3	11,330.3	10,035.5	8,740.5	7,445.7	6,150.7	4,855.9	3,560.9	2,266.1	971.2	77,806.6
Interest on S-T Debt (Local 17%)													
H. Amortization		10,373.0	10,370.0	10,370.0	10,370.0	10,370.0	10,370.0	10,370.0	10,370.0	10,370.0	10,370.0		103,703.0
I. Total Cost of Sales	(E+G+H)	238,651.7	309,850.2	305,425.0	299,909.1	292,329.0	283,137.1	275,557.0	267,977.0	260,397.0	252,817.0	177,546.1	2,963,596.2
J. Income before Tax	(F-G-H)	-58,310.7	55,904.8	60,330.0	3,840.9	11,421.0	20,612.9	28,193.0	35,773.0	43,353.0	50,933.0	126,203.9	378,254.8
K. Income Tax											20,373.2	50,481.6	70,854.8
L. Net Income	(J-K)	-58,310.7	55,904.8	60,330.0	3,840.9	11,421.0	20,612.9	28,193.0	35,773.0	43,353.0	30,559.8	75,722.3	307,400.0
M. Accumulated Income		-58,310.7	-2,405.9	57,924.1	61,765.0	73,186.0	93,798.9	121,991.9	157,764.9	201,117.9	231,677.7	307,400.0	307,400.0
N. Ratio (%)													
Operating Profit		13.7	38.3	37.5	24.0	24.0	24.5	24.5	24.5	24.5	24.5	43.4	28.5
Income before Tax		-43.3	15.3	16.5	1.3	3.8	6.8	9.3	11.8	14.3	16.8	41.5	11.3
Net Income		-43.3	15.3	16.5	1.3	3.8	6.8	9.3	11.8	14.3	10.1	24.9	9.2

Table 24 Proforma Balance Sheet (Case 2)

Unit:NRs'000

ITEM/YEAR	-2/1	1	2	3	4	5	6	7	8	9	10	11
A. CURRENT ASSETS												
Cash		1,505.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Receivables		1,505.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Inventories		23,027.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0	36,627.0
Total		26,037.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0	42,723.0
B. CASH SURPLUS		18,512.3	63,885.1	130,370.1	140,366.0	157,942.0	183,097.9	215,833.9	256,149.9	304,045.9	339,148.7	351,723.0
C. FIXED ASSETS												
Building	150,032.0	142,519.0	135,018.0	127,517.0	120,016.0	112,515.0	105,014.0	97,513.0	90,012.0	82,511.0	75,010.0	67,509.0
Plant & Machinery	573,211.0	515,889.0	458,568.0	401,247.0	343,926.0	286,605.0	229,284.0	171,963.0	114,642.0	57,321.0		
Vehicles & Furnitures	8,063.0	6,448.0	4,836.0	3,224.0	1,612.0							
Total	731,306.0	664,856.0	598,422.0	531,988.0	465,554.0	399,120.0	334,298.0	269,476.0	204,654.0	139,832.0	75,010.0	67,509.0
D. DIFERRED ASSETS												
Deficit		58,310.7	2,405.9									
Interest d. Construction	103,703.0	93,330.0	82,960.0	72,590.0	62,220.0	51,850.0	41,480.0	31,110.0	20,740.0	10,370.0		
Total	103,703.0	151,640.7	85,365.9	72,590.0	62,220.0	51,850.0	41,480.0	31,110.0	20,740.0	10,370.0		
E. TOTAL ASSETS	835,099.0	861,064.0	790,396.0	777,671.1	710,863.0	651,635.0	601,598.9	559,142.9	524,266.9	496,970.9	456,881.7	461,955.0
F. LONG TERM DEBT												
Foreign Loan	598,583.0	598,583.0	538,723.8	478,865.6	419,007.4	359,149.2	299,291.0	239,432.8	179,574.6	119,716.4	59,858.2	
Local Loan	81,871.0	107,908.0	97,117.2	86,326.4	75,535.6	64,744.8	53,954.0	43,163.2	32,372.4	21,581.6	10,790.8	
Total	680,454.0	706,491.0	635,841.0	565,192.0	494,543.0	423,894.0	353,245.0	282,596.0	211,947.0	141,298.0	70,649.0	
G. EQUITY												
Share Capital	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0	154,555.0
Retained Earnings				57,924.1	61,765.0	73,186.0	93,798.9	121,991.9	157,764.9	201,117.9	231,677.7	307,400.0
Total	154,555.0	154,555.0	154,555.0	212,479.1	216,320.0	227,741.0	248,353.9	276,546.9	312,319.9	355,672.9	386,232.7	461,955.0
H. TOTAL LIABILITIES & EQUITY	835,009.0	861,046.0	790,396.0	777,671.1	710,863.0	651,635.0	601,598.9	559,142.9	524,266.9	496,970.9	456,881.7	461,955.0

Table 25 Proforma Fund Statement (Case 2)

Unit : NRs' 000

	-2/1	1	2	3	4	5	6	7	8	9	10	11
SOURCES												
Profit before Interest		14,365.0	129,810.0	126,655.0	62,586.0	62,586.0	64,198.0	64,198.0	64,198.0	64,198.0	64,198.0	131,889.0
Depreciation and Amortization		76,823.0	76,804.0	76,804.0	76,804.0	76,804.0	75,192.0	75,192.0	75,192.0	75,192.0	75,192.0	7,501.0
Share Capital	154,555.0											
Loans	680,454.0	26,037.0										
Working Capital												
Total Sources	835,009.0	117,225.0	206,614.0	203,459.0	139,390.0	139,390.0	139,390.0	139,390.0	139,390.0	139,390.0	139,390.0	139,390.0
APPLICATIONS												
Fixed Capital	731,306.0											
Working Capital		26,037.0	16,686.0									
Repayment of Principal			70,650.0	70,649.0	70,649.0	70,649.0	70,649.0	70,649.0	70,649.0	70,649.0	70,649.0	70,649.0
Interest		72,675.7	73,905.2	66,325.0	53,745.1	51,165.0	43,585.1	36,005.0	28,425.0	20,845.0	13,265.0	5,685.1
Interest during Construction	103,703.0											
Income Tax											20,373.2	50,481.6
Total Applications	835,009.0	98,712.7	161,241.2	136,974.0	129,394.1	121,814.0	114,234.1	106,654.0	99,074.0	91,494.0	104,287.2	126,815.7
Net Cash Inflow	0	18,512.3	45,372.8	66,485.0	9,995.9	17,576.0	25,155.9	32,736.0	40,316.0	47,896.0	35,102.8	12,574.3
Accumulated Reserves	0	18,512.3	63,885.1	130,370.1	140,366.0	157,942.0	183,097.9	215,833.9	256,149.9	304,045.9	339,148.7	351,723.0

Table 26 Internal Rate of Return (Case 2)

YEAR	INVESTMENT	WORKING CAPITAL	INCOME BEFORE TAX	DEPRECIATION & AMORTIZATION	INTEREST	RECLAIMED WORKING CAPITAL	SALVAGE VALUE	NET CASH IN FLOW	DISCOUNT FACTOR	PRESENT VALUE OF NET CASH INFLOW
-2/1	835,009							-835,009	1.000000	-835,009
1		26,037	-58,310.7	76,823	72,675.7			65,151	0.883977	57,592
2		16,686	55,904.8	76,804	73,905.2			189,928	0.781416	148,413
3			60,330.0	76,804	66,325.0			203,459	0.690753	140,540
4			3,840.9	76,804	58,745.1			139,390	0.610610	85,113
5			11,421.0	76,804	51,165.0			139,390	0.539765	75,238
6			20,612.9	75,192	43,585.1			139,390	0.477140	66,509
7			28,193.0	75,192	36,005.0			139,390	0.421781	58,792
8			35,773.0	75,192	28,425.0			139,390	0.372845	51,971
9			43,353.0	75,192	20,845.0			139,390	0.329586	45,941
10			50,933.0	75,192	13,625.0			139,390	0.291347	40,611
11			126,203.9	7,501	5,685.1	42,723	67,509	249,622	0.257544	64,289

TOTAL = 0

INTERNAL RATE OF RETURN = 13.1251%

REFERENCE

(Addition upon request of HMG/N)

1. International Competitiveness

2. Effective Protective Rate

As was requested strongly by HMG/N, the calculation result of International Competitiveness and Effective Protective Rate is shown hereunder as reference data.

1. International Competitiveness (IC)

$$IC = \frac{\Sigma\ (FI - FO)a}{\Sigma\ DR\ a}$$

FI = Foreign exchange inflow
FO = Foreign exchange outflow
DR = Domestic resource input
a = Discount factor (12 %)

$$IC = \frac{1,412}{416} = 3.39 \quad \text{(Case 1)}$$

$$= \frac{1,399}{571} = 2.45 \quad \text{(Case 2)}$$

See Table 1 to 4.

2. Effective Protective Rate (EPR)

$$EPR = \frac{\text{Domestic value added}}{\text{Value added in free trade situation}}$$

* Domestic value added = A − (B + C + D)

A = Sales price ex-factory assumed by the Project
B = Imported inputs valued at price paid by the Project
(Polyester, Auxiliary material, Packing material)
C = Domestically purchased traded value at price paid by the Project
(National cotton)
D = Non-traded inputs utilities at price paid by the Project
(Power, Fuel, Water charge)

* Value added in free trade situation = A′ − (B′ + C′ + D)

A′ = c.i.f. price of corresponding import
B′ = Imported inputs at c.i.f. price excluding taxes and subsidies
(Polyester, Auxiliary material, Packing material)
C′ = Domestically purchased traded inputs at c.i.f.. price
(Cotton)
D = Non-traded inputs utilities at price paid by the Project
(Power, Fuel, Water charge)

A	NRs 365,755 Th.		
B	Polyester	27,182	
	Auxiliary material	37,527	
	Packing material	283	
	Total	64,992	
C	28,291		
D	Power	20,858	
	Fuel	24,827	
	Water	1,378	
	Total	47,063	

A′	365,000	
B′	Polyester	926,661 kg × 29.33 × 0.89 = 24,189
	Auciliary material	37,527/1.01 = 37,155
	Packing material	283/1.01 = 280
	Total	61,624
C′	1,161,849 kg × US¢ 138 × 21 × 1.05 = 35,354	

Now,

Domestic value added = 365,755 – (64,992 + 28,291 + 47,063) = 225,409

Value added in free trade situation

= 365,000 – (61,624 + 35,354 + 47,063) = 220,959

Consequently,

$$\text{EPR} = \frac{225,409}{220,959} - 1 = 1.02 - 1 = 0.02$$

Table 1 Net Foreign Exchange Earnings (Case 1)

Unit : NRs Million

Year	-2/1	1	2	3	4	5	6	7	8	9	10	11	Total
I Foreign Exchange Inflow(FI)													
Foreign equity capital	770												770
Import substitution effect		183	365	365	365	365	365	365	365	365	365	365	3,833
Sub-total	770	183	365	365	365	365	365	365	365	365	365	365	4,603
II Foreign Exchange Outflow(FO)													
Polyester fibre		15	27	27	27	27	27	27	27	27	27	27	285
Auxiliary material		21	38	38	38	38	38	38	38	38	38	38	401
Packing material		2	3	3	3	3	3	3	3	3	3	3	32
Maintenance expence		2	5	8	9	9	9	9	9	9	9	9	87
Fuel, oil, etc.		13	26	26	26	26	26	26	26	26	26	26	273
Repatriated fee & wages	88												88
Repayment of foreign loan			77	77	77	77	77	77	77	77	77	77	770
Interest on foreign loan		81	79	71	63	55	47	38	30	22	14	6	506
Sub-total	88	134	255	250	243	235	227	218	210	202	194	186	2,442
III Net Foreign Exchange Flow (I - II)	682	49	110	115	122	130	138	147	155	163	171	179	2,161
Discount factor 12%	1	0.89	0.80	0.71	0.64	0.57	0.51	0.45	0.40	0.36	0.32	0.29	-
Present Value	682	44	88	82	78	74	70	66	62	59	55	52	1,412

Table 2 Domestic Resource Input (Case 1)

Unit : NRs Million

Year	-2/1	1	2	3	4	5	6	7	8	9	10	11	Total
Investment Domestically Procured	82												82
Material Input		16	28	28	28	28	28	28	28	28	28	28	296
Infrastructural Service		10	21	21	21	21	21	21	21	21	21	21	220
Domestic Wages		9	11	11	11	11	11	11	11	11	11	11	119
Total	82	35	60	60	60	60	60	60	60	60	60	60	717
Discount Factor 12%	1	0.89	0.80	0.71	0.64	0.57	0.51	0.45	0.40	0.36	0.32	0.29	-
Present Value	82	31	48	43	38	34	31	27	24	22	19	17	416

INTERNATIONAL COMPETITUVENESS (IC)

$$IC = \frac{\varepsilon\,(F1-F0)\cdot a}{\varepsilon\,DR\cdot a} = \frac{1412}{416} = 3.39$$

Table 3 Net Foreign Exchange Earnings (Case 2)

Unit: NRs Million

Year	-2/1	1	2	3	4	5	6	7	8	9	10	11	Total
I Foreign Exchange Inflow(FI)													
Foreign equity capital	599												599
Import substitution effect		183	365	365	365	365	365	365	365	365	365	365	3,833
Sub-total	599	183	365	365	365	365	365	365	365	365	365	365	4,432
II Foreign Exchange Outflow(FO)													
Polyester fibre		15	27	27	27	27	27	27	27	27	27	27	285
Auxiliary material		21	38	38	38	38	38	38	38	38	38	38	401
Packing material		2	3	3	3	3	3	3	3	3	3	3	32
Maintenance expence		2	5	8	9	9	9	9	9	9	9	9	87
Fuel, oil, etc.		13	26	26	26	26	26	26	26	26	26	26	273
Repatriated fee & wages	88												88
Repayment of foreign loan			60	60	60	60	60	60	60	60	60	60	600
Interest on foreign loan		63	61	55	49	42	36	30	24	17	11	5	393
Sub-total	88	116	220	217	212	205	199	193	187	180	174	168	2,159
III Net Foreign Exchange Flow (I - II)	511	67	145	148	153	160	166	172	178	185	191	197	2,273
Discount factor 12%	1	0.89	0.80	0.71	0.64	0.57	0.51	0.45	0.40	0.36	0.32	0.29	-
Present Value	511	60	116	105	98	91	85	77	71	67	61	57	1,399

Table 4 Domestic Resource Input (Case 2)

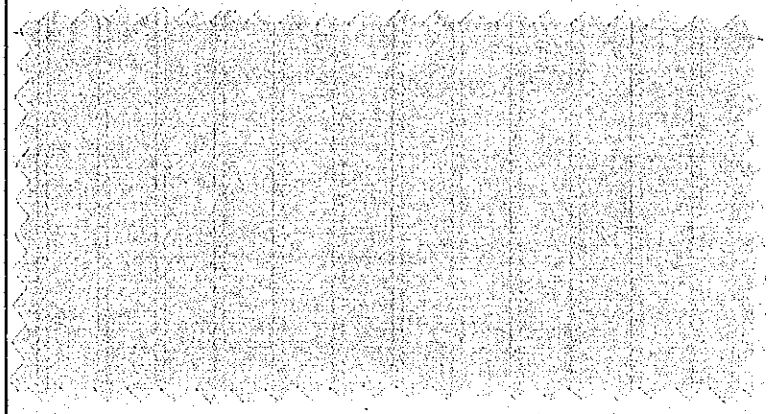
Unit: NRs Million

Year	-2/1	1	2	3	4	5	6	7	8	9	10	11	Total
Investment Domestically Procured	237												237
Material Input		16	28	28	28	28	28	28	28	28	28	28	296
Infrastructural Service		10	21	21	21	21	21	21	21	21	21	21	220
Domestic Wages		9	11	11	11	11	11	11	11	11	11	11	119
Total	237	35	60	60	60	60	60	60	60	60	60	60	872
Discount Factor 12%	1	0.89	0.80	0.71	0.64	0.57	0.51	0.45	0.40	0.36	0.32	0.29	-
Present Value	237	31	48	43	38	34	31	27	24	22	19	17	571

INTERNATIONAL COMPETITUVENESS (IC)

$$IC = \frac{1399}{571} = 2.45$$

Annex. Sample for Reference



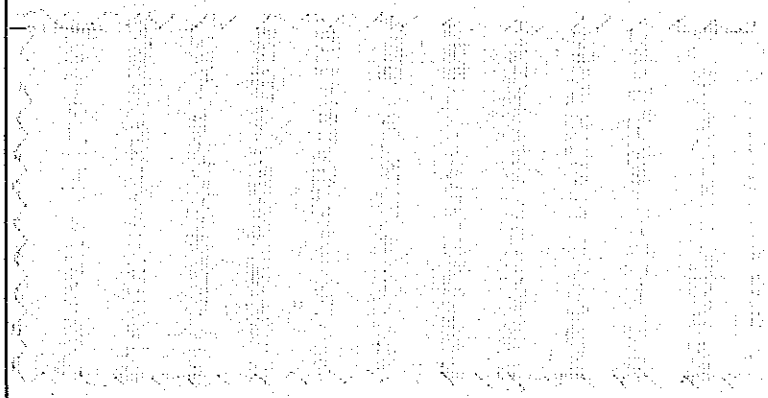
SHIRTING SAMPLE

Polyester/Cotton

$\frac{45's \times 45's}{100 \times 72}$ x 45"

Dobby

Disperse/Vat Dye



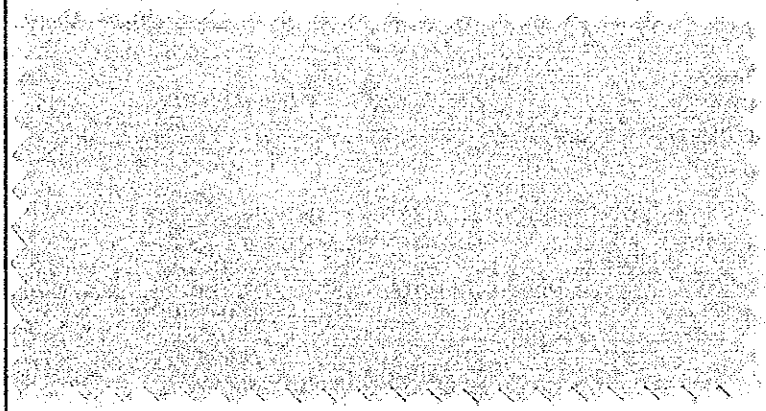
SHIRTING SAMPLE

Polyester/Cotton

$\frac{45's \times 45's}{102 \times 80}$ x 45"

Dobby

Optical Bleaching



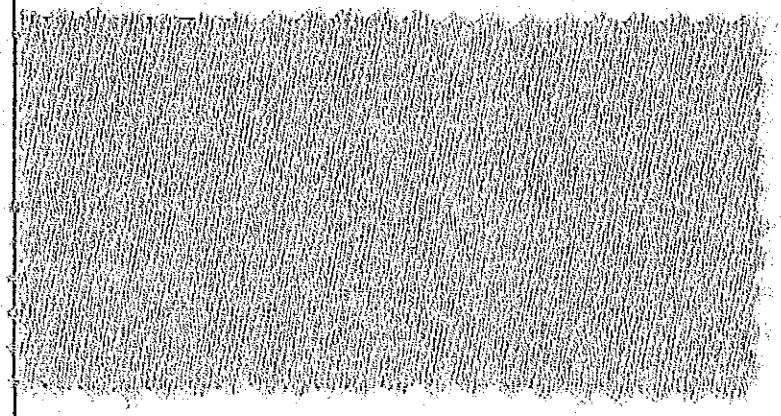
SHIRTING SAMPLE

Polyester/Cotton

$\frac{45's \times 45's}{90 \times 83}$ x 45"

Plain

Disperse/Vat Dye



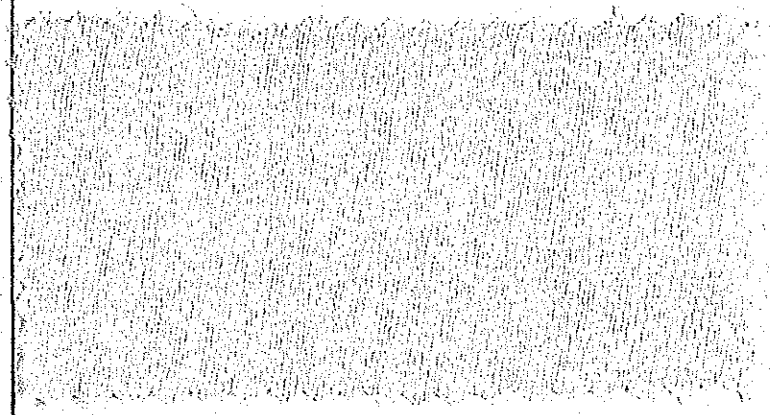
SUITING SAMPLE

Polyester/Cotton

$\frac{34's \times 34's}{117 \times 64} \times 58"$

Dobby

Disperse/Reactive Dye



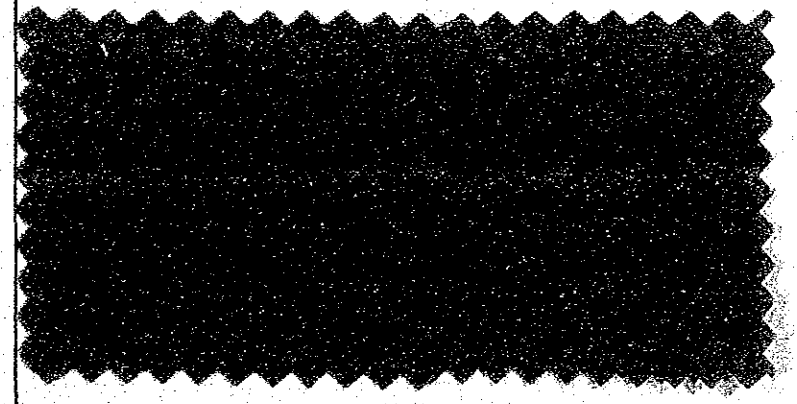
SUITING SAMPLE

Polyester/Cotton

$\frac{34's \times 34's}{117 \times 64} \times 58"$

Dobby

Optical Bleaching



TWILL SAMPLE

Polyester/Cotton

$\frac{34's \times 34's}{126 \times 66} \times 58"$

Twill

Disperse/Vat Dye

JICA