

**Investment Office ANRS**

**PROJECT PROFILE ON THE ESTABLISHMENT  
OF LEATHER GOODS PRODUCING PLANT**

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## **1. Executive Summary**

This project profile deals with leather goods producing plant in Amhara National Regional State. The objective of this report is to provide information regarding manufacturing of leather goods items. The following presents the main findings of the study

Demand projection pointed out that there is ample demand in Amhara region alone for various leather goods. Accordingly, the planned plant is set to produce 28,750 ladies bag, 57,500 wallets, 115,000 waist belts and 11,500 brief cases annually. The total investment cost of the project including working capital is estimated at Birr 1.56 million and creates 37 jobs and Birr 460.38 of income.

The financial result indicates that the project will generate profit beginning from the first year of operation. Moreover, the project will break even at 43.6% of capacity utilization and it will payback fully the initial investment less working capital in 3 years and 1 month. The result further shows that the calculated IRR of the project is 22% and NPV valued at 18% discount is Birr 216,043.05. The proposed plant, however, is sensitive to cost increase.

In addition to this, the proposed project possesses wide range of economic and social benefits such as increasing the level of investment, tax revenue, and employment creation.

Generally, the project is technically feasible, financially and commercially viable as well as socially and economically acceptable. Hence the project is worth implementing.

## **2. Product Description and Application**

Ethiopia has a large competitive advantage in the leather industry because it ranks number 1 in Africa and 10<sup>th</sup> in the world with respect to the size of its livestock population. The Ethiopian leather and leather product sub-sector produces a range of products from semi-processed leather in various forms to processed leathers such as shoe uppers, leather garments, stitched upholstery, school bags, handbags, industrial gloves, and finished leather. Such leather products have been

consumed by a portion of the domestic population and also exported to markets in Europe, the USA, Canada, Japan and the Far East.

The goods to be produced by the envisaged small plant mainly target the urban population of the Amhara National Regional State. The products to be produced are ladies purses, ladies handbags, waist belts, wallets, and briefcases that are used in the day to day activity of the people..

### **3. Market Study, Plant Capacity and Production Program**

#### **3.1 Market Study**

##### **3.1.1 Present Demand and Supply**

According to CSA survey on large and medium scale manufacturing (2007), the number of firms engaged in tanning and dressing of leather; manufacture of footwear, luggage and handbags are 63 in total of which 6 are located in Amhara region. However, quantity of production on these items is not documented in detail. The same holds true for the imported product. However, it is certain that ladies hand bags, belts, wallets and brief cases are usually demanded by the urban people. Therefore, to determine the current demand for the products in the region, the following conservative considerations are developed.

- I. 2.5 percent of the urban females of the region have demand for leather bag.
- II. 5 percent of the urban male of the region have demand for leather wallets.
- III. 10 percent of the urban male of the region make use of waist belts, and
- IV. About 0.5 percent of the urban dwellers of the region have demand for brief case.

According to CSA annual report (2006), the number of urban people of the Amhara region in 2005/06 has been 2.3 million of which 1.15million are male and 1.15million are female. Thus, based on the conservative measure indicated earlier, the effective demand for the products is estimated to be 28,750 ladies bag, 57,500 wallets, 115,000 waist belts and 11,500 brief cases. The figure substantially increases if the assumption is relaxed and also if other regions' demand is incorporated in the document.

### 3.1.2 Projected Demand

In order to project the future demand, it is conservatively assumed that demand for ladies bag, wallet and belt increases by 1% while 0.25% increase is considered for the brief case. Accordingly, the following demand projection is obtained.

**Table 1: Projected Demand for Leather Goods**

<b>Year</b>	<b>Ladies Bag</b>	<b>Wallet</b>	<b>Belt</b>	<b>Brief Case</b>
2007/08	29328	58656	117312	11558
2008/09	29621	59242	118485	11586
2009/10	29917	59835	119669	11615
2010/11	30217	60433	120866	11644
2011/12	30519	61037	122075	11674
2012/13	30824	61648	123296	11703
2013/14	31132	62264	124529	11732
2014/15	31443	62887	125774	11761
2015/16	31758	63516	127032	11791
2016/17	32075	64151	128302	11820
2017/18	32396	64792	129585	11850
2018/19	32720	65440	130881	11879

The result in table 1 above is conservative as it does not consider population growth and replacements of worn out items in the projection. In any case the above table indicates the presence of ample demand for the products in Amhara region alone.

### 3.1.3 Pricing and Distribution

Based on the market research result and the capacity of the envisaged plant, the selling price is set at Birr 125 for a piece of ladies bag, Birr 20 for a piece of wallet, Birr 40 for belt and Birr 250 for brief case. This price is competitive when compared with the prevailing market price. The available distribution channel will be used for the plant.

### **3.2 Plant Capacity**

Given the expected demand for leather goods discussed earlier, and the planned technology, the envisaged plant is set to produce a product mix of 5,000 ladies handbags, 9,000 Wallets, 15,000 belts, and 1,000 briefcases per annum.

### **3.3 Production Program**

The program is scheduled based on the consideration that the envisaged plant will work 275 days in a year in 1 shift, where the remaining days will be holidays and for maintenance. During the first year of operation the plant will operate at 75 percent capacity and then it grows to 90 percent in the 2<sup>nd</sup> year. The capacity will grow to 100 percent starting from the 3<sup>rd</sup> year. This consideration is developed based on the assumption that market and logistics barriers would take place for the first two years of operation.

## 4. Raw Materials and Utilities

### 4.1 Availability and Source of Raw Materials

The main raw materials are processed leather from tannery industries. In addition the plant requires inner lining, metal corners, zip, adhesive material, buttons, wooden frame (for briefcases), lock set and other allied accessories (for briefcases,. Most of the materials are available from local tanneries and suppliers that sell domestic as well as imported materials.

### 4.2 Annual Requirement and Cost of Raw Materials and Utilities

The annual raw material and utility requirement and the associated cost for the envisaged plant is listed in table 4 here under

**Table 4 Material and Utility Requirement**

The total cost of raw material and utility is estimated at Birr 639,361 per annum.

Material and Input	Quantity	Total Cost	
		L.C.	F.C.
Leather	5700 sq.m	427,500	
Inner lining,	2,420 sq.m	24,240	
Metal corners	40,000 pcs	8,000	
Zip	16,000 pcs	8,000	
Adhesive material	85 kg	8500	
Buttons	5,000 pcs	1000	
Wooden frame	320 sq.m	8500	
Lock	1,000	2500	
Cardboard (Box)	1,000	4000	
<b>Total Material Cost</b>		492,240	
Utility			
Electricity	264,000kwh	145,200	
Water	725	1921	
<b>Total Utility Cost</b>		147,121	

## **5. Location and Site**

The appropriate location for the envisaged project in view of easy access to inputs, infrastructure as well as market for the output is Bahir Dar.

## **6. Technology and Engineering**

### **6.1 *Production Process***

The production process flow requires: Pattern/Frames of the Product, Cutting of leather, Skiving, Folding of edges, Sticking of different parts, Stitching, Fixing of locks and Accessories, Finishing quality check and at last Packing. The detail of this process is discussed hereunder.

#### *A. Pattern/frames of the product and cutting of leather*

In this process, dyes/pattern are made according to the shape and design requirements of the product and leather is cut into pieces of different sizes and shapes with the help of these dyes/patterns and hydraulic cutting press. For briefcases, wooden and hardboard frames are readily available in the market in different standard sizes.

#### *B. Skiving*

Skiving is a process of scuffing the edges of the leather pieces, so that the leather can stick more effectively.

#### *C. Folding of edges*

Skived edges are folded and different parts are glued before stitching.

#### *D. Stitching*

Glued parts of the product are stitched and unnecessary parts of leather and threads are removed/picked in this process.



*E. Fixing of locks and accessories*

The locks and accessories are fixed in the appropriate places and sizes.

*F. Finishing quality check and packing*

Finished product is checked for the assured standards and products are packed.

The alternative production technology is related to the capacity of operation. That is, irrespective of the production method, different types of machinery have got different capacity of operating the various jobs (cutting, skiving and stitching, etc). The technology selected by the envisaged plant adequately fits to the planned capacity and, therefore, alternative machineries are not as such recommended.

## **6.2 Machinery and Equipment**

The machineries and equipment required for producing the leather goods is detailed in table 3 below

**Table 3: Machinery and Equipment**

<b>Machinery and Equipment</b>	<b>Quantity</b>
Hydraulic Cutting Press	1
Cutting Machine	1
Strap Cutting	1
Skiving Machine	2
Needle Lock stitch Machine	12
Single Needle Block	1
Single Needle Post-Bed Needle Feed	1
Dyes for Hydraulic Cutting	60

The total cost of machinery and equipment including freight insurance and bank cost is estimated to be about Birr 377,000.

The following are some of the machineries suppliers' address for the envisaged project

**Gabbar Engineering Company**

Plot No.1903, Phase III, F-Road, G.I.D.C. Industrial Estate, Vatwa

Ahmedabad, Gujarat, India

Phone: +(91)-(79)-25830971/25891657

Fax: +(91)-(79)-25832000

Website: <http://www.indiamart.com/gabbar-engineering>

**Ganpati Shoe Machinery**

13/22,24, DDA Business Centre

New Delhi. India

Phone: +(91)-(11)-5511371

Fax: +(91)-(11)-5525065

**E.H. Turel & Company**

48, Clare Road Byculla

Mumbai, Maharashtra, India

Tel: 022-24129234, 24132292

Fax: 022-25004307

### **6.3 Civil Engineering Cost**

The total site area for the envisaged plant is estimated to be 350 m<sup>2</sup> where stitching and finishing hall consumes 150 m<sup>2</sup>, Inspection and cutting area, 50 m<sup>2</sup>, Store 50 m<sup>2</sup>, office and facilities 100 m<sup>2</sup>.

## **7. Human Resource and Training Requirement**

### **7.1 Human Resource**

The list of required manpower for the envisaged plant is stated in table 4 below

**Table 4: Human Resource Requirement**

<b>Position</b>	<b>No. Required</b>	<b>Monthly Salary</b>	<b>Total Annual Salary</b>
Manager	1	4000	48000
Production Supervisor	1	2000	24000
Accountant	1	1200	14400
Secretary	1	850	10200
Quality Supervisor	2	1500	36000
Skilled Workers	10	1000	120000
Assistants	3	600	21600
Sales Clerk	3	800	28800
Store Keeper	2	800	19200
Laborers	4	400	19200
Cleaners	4	400	19200
Driver	1	800	9600
Guards	4	400	19200
Benefit (20%)			70980
<b>Total</b>	<b>37</b>		<b>460,380</b>

The envisaged plant therefore, creates 37 jobs and about Birr 460.38 thousand of income. The professionals and support staff for the envisaged plant shall be recruited from Amhara region.

## **7.2 Training Requirement**

Training of key personnel shall be conducted in one of the existing plants as well as on job trainings. The training should primarily focus on the production technology and trouble shooting. Birr 20,000 will be allocated as training expense.

## **8. Financial Analysis**

### **8.1 Underlying Assumption**

The financial analysis of the envisaged plant is based on the data provided in the preceding sections and the following assumptions.

### A. Construction and Finance

Construction period	2 years
Source of finance	40% equity and 60% loan
Tax holidays	2 years
Bank interest rate	12%
Discount for cash flow	18%
Value of land	Based on lease rate of ANRS
Spare Parts, Repair & Maintenance	3% of fixed investment

### B. Depreciation

Building	5%
Machinery and equipment	10%
Office furniture	10%
Vehicles	20%
Pre-production (amortization)	20%

### C. Working Capital (Minimum Days of Coverage)

Raw Material-Local	30
Raw Material-Foreign	120
Factory Supplies in Stock	30
Spare Parts in Stock and Maintenance	30
Work in Progress	10
Finished Products	15
Accounts Receivable	30
Cash in Hand	30
Accounts Payable	30

## 8.2 Investment

The total investment cost of the project including working capital is estimated at Birr 1.56 million as shown in table 5 below. The Owner shall contribute 40% of the finance in the form of equity while the remaining 60% is to be financed by bank loan.

**Table 5: Total initial investment**

Items	L.C	F.C	Total
Land	1,050		1,050
Building and civil works	700,000		700,000
Office equipment	40,000		40,000
Vehicles	150,000		150,000
Plant machinery & equipment	0	377,000	377,000
<i>Total fixed investment cost</i>	<i>891,050</i>	<i>377,000</i>	<i>1,268,050</i>
Pre production capital expenditure*	63,403		63,403
<i>Total initial investment</i>	<i>954,453</i>	<i>377,000</i>	<i>1,331,453</i>
Working capital at full capacity	228,352	0	228,352
<b>Total</b>	<b>1,182,804</b>	<b>377,000</b>	<b>1,559,804</b>

*\*Pre-production capital expenditure includes - all expenses for pre-investment studies, consultancy fee during construction and expenses for company's establishment, project administration expenses, commission expenses, preproduction marketing and interest expenses during construction.*

The foreign component of the project accounts for 24.2% of the total investment cost.

## 8.3 Production Costs

The total production cost at full capacity operation is estimated at Birr 1.35 million as detailed in table 6 below.

**Table 6: Production Cost**

<b>Items</b>	<b>Cost</b>
1. Raw materials	492,240
2. Utilities	147,121
3. Wages and Salaries	460,380
4. Spares and Maintenance	38,042
<b><i>Factory costs</i></b>	<b><i>1,137,783</i></b>
5. Depreciation	119,381
6. Financial costs	93,588
<b><i>Total Production Cost</i></b>	<b><i>1,350,751</i></b>

## **8.4 Financial Evaluation**

### *I. Profitability*

According to the projected income statement attached in the annex part (see annex 4) the project will generate profit beginning from the first year of operation although the figure is very low. Ratios such as the percentage of net profit to total sales, return on equity and return on total investment are 2%, 4% and 18% respectively in the first year and are gradually rising. Furthermore, the income statement and other profitability indicators show that the project is viable.

### *II. Breakeven Analysis*

The breakeven point of the project is estimated by using income statement projection. Accordingly, the project will break even at 43.6 of capacity utilization.

### *III. Payback Period*

Investment cost and income statement projection are used in estimating the project payback period. The projects will payback fully the initial investment less working capital in 3 years and 1 month.

#### *IV. Simple Rate of Return*

For the envisaged plant the simple rate of return equals to 19.5 %

#### *V. Internal Rate of Return and Net Present Value*

Based on cash flow statement described in the annex part, the calculated IRR of the project is 22% and the net present value at 18% discount is Birr 216,043.05

#### *VI. Sensitivity Analysis*

The envisaged plant is sensitive to a possible increase in the cost of production. That is the plant incurs loss of Birr 43,410.17 in the first year and starts profiting thereafter if a 10% cost increase takes place. Moreover, the payback period extends to 3 years and 8 months.

## **9. Economic and Social Benefit and Justification**

The envisaged project possesses wide range of benefits where it promotes the socio-economic goals and objectives stated in the strategic plan of the Amhara National Regional State. It boosts inter sectorial linkage between the agricultural (livestock) and industrial sector. At the same time, therefore, it helps diversify the economic activity of the region. The other major benefits are listed as follows:

### ***A. Profit Generation***

The project is found to be financially viable and earns a profit of Birr 2.5 million within the project life. Such result induces the project promoters to reinvest the profit which, therefore, increases the investment magnitude in the region.

### ***B. Tax Revenue***

In the project life under consideration, the region will collect about Birr 964.09 thousand from corporate tax payment alone (i.e. excluding income tax, sales tax and VAT). Such result creates additional fund for the regional government that will be used in expanding social and other basic services in the region

### ***C. Employment and Income Generation***

The proposed project is expected to create employment opportunity to several citizens of the region. That is, it will provide permanent employment to 38 professionals as well as support staff. Consequently the project creates income of Birr 460.38 thousand per year. This would be one of the commendable accomplishments of the project.

### ***D. Pro Environment Project***

The proposed production process is environment friendly as the plant uses already processed leather.



# **ANNEXES**

## Annex 1: Total Net Working Capital Requirements (in Birr)

	CONSTRUCTION		PRODUCTION			
	Year 1	Year 2	1	2	3	4
<b>Capacity Utilization (%)</b>	0.00	0.00	75%	90%	100%	100%
<b>1. Total Inventory</b>	0.00	0.00	161833.53	194200.24	215778.04	215778.04
<b>Raw Materials in Stock- Total</b>	0.00	0.00	40274.18	48329.02	53698.91	53698.91
<b>Raw Material-Local</b>	0.00	0.00	40274.18	48329.02	53698.91	53698.91
<b>Raw Material-Foreign</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Factory Supplies in Stock</b>	0.00	0.00	1028.59	1234.31	1371.45	1371.45
<b>Spare Parts in Stock and Maintenance</b>	0.00	0.00	3112.49	3734.98	4149.98	4149.98
<b>Work in Progress</b>	0.00	0.00	25714.70	30857.64	34286.26	34286.26
<b>Finished Products</b>	0.00	0.00	51429.40	61715.27	68572.53	68572.53
<b>2. Accounts Receivable</b>	0.00	0.00	135409.09	162490.91	180545.45	180545.45
<b>3. Cash in Hand</b>	0.00	0.00	49704.63	59645.55	66272.84	66272.84
<b>CURRENT ASSETS</b>	0.00	0.00	306673.07	368007.68	408897.42	408897.42
<b>4. Current Liabilities</b>	0.00	0.00	135409.09	162490.91	180545.45	180545.45
<b>Accounts Payable</b>	0.00	0.00	135409.09	162490.91	180545.45	180545.45
<b>TOTAL NET WORKING CAPITAL REQUIREMENTS</b>	0.00	0.00	171263.98	205516.77	228351.97	228351.97
<b>INCREASE IN NET WORKING CAPITAL</b>	0.00	0.00	171263.98	34252.80	22835.20	0.00

**Annex 1: Total Net Working Capital Requirements (in Birr) (continued)**

	PRODUCTION					
	5	6	7	8	9	10
<b>Capacity Utilization (%)</b>	100%	100%	100%	100%	100%	100%
<b>1. Total Inventory</b>	215778.04	215778.04	215778.04	215778.04	215778.04	215778.04
<b>Raw Materials in Stock-Total</b>	53698.91	53698.91	53698.91	53698.91	53698.91	53698.91
<b>Raw Material-Local</b>	53698.91	53698.91	53698.91	53698.91	53698.91	53698.91
<b>Raw Material-Foreign</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Factory Supplies in Stock</b>	1371.45	1371.45	1371.45	1371.45	1371.45	1371.45
<b>Spare Parts in Stock and Maintenance</b>	4149.98	4149.98	4149.98	4149.98	4149.98	4149.98
<b>Work in Progress</b>	34286.26	34286.26	34286.26	34286.26	34286.26	34286.26
<b>Finished Products</b>	68572.53	68572.53	68572.53	68572.53	68572.53	68572.53
<b>2. Accounts Receivable</b>	180545.45	180545.45	180545.45	180545.45	180545.45	180545.45
<b>3. Cash in Hand</b>	66272.84	66272.84	66272.84	66272.84	66272.84	66272.84
<b>CURRENT ASSETS</b>	408897.42	408897.42	408897.42	408897.42	408897.42	408897.42
<b>4. Current Liabilities</b>	180545.45	180545.45	180545.45	180545.45	180545.45	180545.45
<b>Accounts Payable</b>	180545.45	180545.45	180545.45	180545.45	180545.45	180545.45
<b>TOTAL NET WORKING CAPITAL REQUIREMENTS</b>	228351.97	228351.97	228351.97	228351.97	228351.97	228351.97
<b>INCREASE IN NET WORKING CAPITAL</b>	0.00	0.00	0.00	0.00	0.00	0.00

<b>Annex 2: Cash Flow Statement (in Birr)</b>						
	<b>CONSTRUCTION</b>		<b>PRODUCTION</b>			
	<b>Year 1</b>	<b>Year 2</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>TOTAL CASH INFLOW</b>	665726.25	894078.22	1376659.09	1516581.82	1673054.55	1655000.00
<b>1. Inflow Funds</b>	665726.25	894078.22	135409.09	27081.82	18054.55	0.00
<b>Total Equity</b>	266290.50	357631.29	0.00	0.00	0.00	0.00
<b>Total Long Term Loan</b>	399435.75	536446.93	0.00	0.00	0.00	0.00
<b>Total Short Term Finances</b>	0.00	0.00	135409.09	27081.82	18054.55	0.00
<b>2. Inflow Operation</b>	0.00	0.00	1241250.00	1489500.00	1655000.00	1655000.00
<b>Sales Revenue</b>	0.00	0.00	1241250.00	1489500.00	1655000.00	1655000.00
<b>Interest on Securities</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>3. Other Income</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL CASH OUTFLOW</b>	665726.25	665726.25	1402340.69	1343881.60	1510912.14	1456920.04
<b>4. Increase In Fixed Assets</b>	665726.25	665726.25	0.00	0.00	0.00	0.00
<b>Fixed Investments</b>	634025.00	634025.00	0.00	0.00	0.00	0.00
<b>Pre-production Expenditures</b>	31701.25	31701.25	0.00	0.00	0.00	0.00
<b>5. Increase in Current Assets</b>	0.00	0.00	306673.07	61334.61	40889.74	0.00
<b>6. Operating Costs</b>	0.00	0.00	847413.72	1014260.62	1125491.88	1125491.88
<b>7. Corporate Tax Paid</b>	0.00	0.00	0.00	0.00	94961.81	100577.10
<b>8. Interest Paid</b>	0.00	0.00	248253.90	112305.92	93588.27	74870.61
<b>9.Loan Repayments</b>	0.00	0.00	0.00	155980.45	155980.45	155980.45
<b>10.Dividends Paid</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Surplus(Deficit)</b>	0.00	228351.97	-25681.60	172700.22	162142.40	198079.96
<b>Cumulative Cash Balance</b>	0.00	228351.97	202670.37	375370.59	537512.99	735592.95

<b>Annex 2: Cash Flow Statement (in Birr): Continued</b>						
	<b>PRODUCTION</b>					
	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>TOTAL CASH INFLOW</b>	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00
<b>1. Inflow Funds</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Equity</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Long Term Loan</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Short Term Finances</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>2. Inflow Operation</b>	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00
<b>Sales Revenue</b>	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00
<b>Interest on Securities</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>3. Other Income</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL CASH OUTFLOW</b>	1443817.69	1443519.48	1430417.12	1261334.32	1261334.32	1261334.32
<b>4. Increase In Fixed Assets</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Fixed Investments</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Pre-production Expenditures</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>5. Increase in Current Assets</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>6. Operating Costs</b>	1125491.88	1125491.88	1125491.88	1125491.88	1125491.88	1125491.88
<b>7. Corporate Tax Paid</b>	106192.40	124611.84	130227.14	135842.44	135842.44	135842.44
<b>8. Interest Paid</b>	56152.96	37435.31	18717.65	0.00	0.00	0.00
<b>9. Loan Repayments</b>	155980.45	155980.45	155980.45	0.00	0.00	0.00
<b>10.Dividends Paid</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Surplus(Deficit)</b>	211182.31	211480.52	224582.88	393665.68	393665.68	393665.68
<b>Cumulative Cash Balance</b>	946775.26	1158255.79	1382838.67	1776504.35	2170170.03	2563835.72

<b>Annex 3: DISCOUNTED CASH FLOW-TOTAL CAPITAL INVESTED</b>						
	<b>CONSTRUCTION</b>		<b>PRODUCTION</b>			
	<b>Year 1</b>	<b>Year 2</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>TOTAL CASH INFLOW</b>	0.00	0.00	1241250.00	1489500.00	1655000.00	1655000.00
<b>1. Inflow Operation</b>	0.00	0.00	1241250.00	1489500.00	1655000.00	1655000.00
<b>Sales Revenue</b>	0.00	0.00	1241250.00	1489500.00	1655000.00	1655000.00
<b>Interest on Securities</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>2. Other Income</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL CASH OUTFLOW</b>	665726.25	665726.25	1018677.70	1048513.41	1243288.88	1226068.98
<b>3. Increase in Fixed Assets</b>	665726.25	665726.25	0.00	0.00	0.00	0.00
<b>Fixed Investments</b>	634025.00	634025.00	0.00	0.00	0.00	0.00
<b>Pre-production Expenditures</b>	31701.25	31701.25	0.00	0.00	0.00	0.00
<b>4. Increase in Net Working Capital</b>	0.00	0.00	171263.98	34252.80	22835.20	0.00
<b>5. Operating Costs</b>	0.00	0.00	847413.72	1014260.62	1125491.88	1125491.88
<b>6. Corporate Tax Paid</b>	0.00	0.00	0.00	0.00	94961.81	100577.10
<b>NET CASH FLOW</b>	-665726.25	-665726.25	222572.30	440986.59	411711.12	428931.02
<b>CUMMULATIVE NET CASH FLOW</b>	-665726.25	-1331452.50	-1108880.20	-667893.61	-256182.49	172748.52
<b>Net Present Value (at 18%)</b>	-665726.25	-564174.79	159847.96	268398.05	212356.01	187489.70
<b>Cumulative Net present Value</b>	-665726.25	-1229901.04	-1070053.08	-801655.03	-589299.01	-401809.31

<b>Annex 3: DISCOUNTED CASH FLOW-TOTAL CAPITAL INVESTED (Continued)</b>						
	<b>PRODUCTION</b>					
	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>TOTAL CASH INFLOW</b>	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00
<b>1. Inflow Operation</b>	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00
<b>Sales Revenue</b>	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00
<b>Interest on Securities</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>2. Other Income</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL CASH OUTFLOW</b>	1231684.28	1250103.72	1255719.02	1261334.32	1261334.32	1261334.32
<b>3. Increase in Fixed Assets</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Fixed Investments</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Pre-production Expenditures</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>4. Increase in Net Working Capital</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>5. Operating Costs</b>	1125491.88	1125491.88	1125491.88	1125491.88	1125491.88	1125491.88
<b>6. Corporate Tax Paid</b>	106192.40	124611.84	130227.14	135842.44	135842.44	135842.44
<b>NET CASH FLOW</b>	423315.72	404896.28	399280.98	393665.68	393665.68	393665.68
<b>CUMMULATIVE NET CASH FLOW</b>	596064.25	1000960.52	1400241.50	1793907.19	2187572.87	2581238.56
<b>Net Present Value (at 18%)</b>	156809.49	127107.08	106223.98	88754.32	75215.52	63741.97
<b>Cumulative Net present Value</b>	-244999.82	-117892.74	-11668.76	77085.56	152301.08	216043.05
<b>Net Present Value (at 18%)</b>	<b>216,043.05</b>					
<b>Internal Rate of Return</b>	<b>22.0%</b>					

<b>Annex 4: NET INCOME STATEMENT ( in Birr)</b>					
	<b>PRODUCTION</b>				
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Capacity Utilization (%)</b>	75%	90%	100%	100%	100%
<b>1. Total Income</b>	1241250.00	1489500.00	1655000.00	1655000.00	1655000.00
<b>Sales Revenue</b>	1241250.00	1489500.00	1655000.00	1655000.00	1655000.00
<b>Other Income</b>	0.00	0.00	0.00	0.00	0.00
<b>2. Less Variable Cost</b>	696120.47	835344.57	928160.63	928160.63	928160.63
<b>VARIABLE MARGIN</b>	545129.53	654155.43	726839.37	726839.37	726839.37
<b>(In % of Total Income)</b>	43.92	43.92	43.92	43.92	43.92
<b>3. Less Fixed Costs</b>	270673.75	298296.55	316711.75	316711.75	316711.75
<b>OPERATIONAL MARGIN</b>	274455.78	355858.88	410127.62	410127.62	410127.62
<b>(In % of Total Income)</b>	22	24	25	25	25
<b>4. Less Cost of Finance</b>	248253.90	112305.92	93588.27	74870.61	56152.96
<b>5. GROSS PROFIT</b>	26201.88	243552.96	316539.35	335257.01	353974.66
<b>6. Income (Corporate) Tax</b>	0.00	0.00	94961.81	100577.10	106192.40
<b>7. NET PROFIT</b>	26201.88	243552.96	221577.55	234679.90	247782.26
<b>RATIOS (%)</b>					
<b>Gross Profit/Sales</b>	2%	16%	19%	20%	21%
<b>Net Profit After Tax/Sales</b>	2%	16%	13%	14%	15%
<b>Return on Investment</b>	18%	23%	20%	20%	19%
<b>Return on Equity</b>	4%	39%	36%	38%	40%



<b>Annex 4: NET INCOME STATEMENT (in Birr):Continued</b>					
	<b>PRODUCTION</b>				
	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>Capacity Utilization (%)</b>	100%	100%	100%	100%	100%
<b>1. Total Income</b>	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00
<b>Sales Revenue</b>	1655000.00	1655000.00	1655000.00	1655000.00	1655000.00
<b>Other Income</b>	0.00	0.00	0.00	0.00	0.00
<b>2. Less Variable Cost</b>	928160.63	928160.63	928160.63	928160.63	928160.63
<b>VARIABLE MARGIN</b>	726839.37	726839.37	726839.37	726839.37	726839.37
<b>(In % of Total Income)</b>	44	44	44	44	44
<b>3. Less Fixed Costs</b>	274031.25	274031.25	274031.25	274031.25	274031.25
<b>OPERATIONAL MARGIN</b>	452808.12	452808.12	452808.12	452808.12	452808.12
<b>(In % of Total Income)</b>	27	27	27	27	27
<b>4. Less Cost of Finance</b>	37435.31	18717.65	0.00	0.00	0.00
<b>5. GROSS PROFIT</b>	415372.81	434090.47	452808.12	452808.12	452808.12
<b>6. Income (Corporate) Tax</b>	124611.84	130227.14	135842.44	135842.44	135842.44
<b>7. NET PROFIT</b>	290760.97	303863.33	316965.68	316965.68	316965.68
<b>RATIOS (%)</b>					
<b>Gross Profit/Sales</b>	25%	26%	27%	27%	27%
<b>Net Profit After Tax/Sales</b>	18%	18%	19%	19%	19%
<b>Return on Investment</b>	21%	21%	20%	20%	20%
<b>Return on Equity</b>	47%	49%	51%	51%	51%

## Annex 5: Projected Balance Sheet (in Birr)

	CONSTRUCTION		PRODUCTION			
	Year 1	Year 2	1	2	3	4
<b>TOTAL ASSETS</b>	665726.25	1559804.47	1721415.44	1836069.77	1919721.42	1998420.87
<b>1. Total Current Assets</b>	0.00	228351.97	509343.44	743378.27	946410.42	1144490.37
Inventory on Materials and Supplies	0.00	0.00	44415.26	53298.31	59220.34	59220.34
Work in Progress	0.00	0.00	25714.70	30857.64	34286.26	34286.26
Finished Products in Stock	0.00	0.00	51429.40	61715.27	68572.53	68572.53
Accounts Receivable	0.00	0.00	135409.09	162490.91	180545.45	180545.45
Cash in Hand	0.00	0.00	49704.63	59645.55	66272.84	66272.84
Cash Surplus, Finance Available	0.00	228351.97	202670.37	375370.59	537512.99	735592.95
Securities	0.00	0.00	0.00	0.00	0.00	0.00
<b>2. Total Fixed Assets, Net of Depreciation</b>	665726.25	1331452.50	1212072.00	1092691.50	973311.00	853930.50
Fixed Investment	0.00	634025.00	1268050.00	1268050.00	1268050.00	1268050.00
Construction in Progress	634025.00	634025.00	0.00	0.00	0.00	0.00
Pre-Production Expenditure	31701.25	63402.50	63402.50	63402.50	63402.50	63402.50
Less Accumulated Depreciation	0.00	0.00	119380.50	238761.00	358141.50	477522.00
<b>3. Accumulated Losses Brought Forward</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>4. Loss in Current Year</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL LIABILITIES</b>	665726.25	1559804.47	1721415.44	1836069.77	1919721.42	1998420.87
<b>5. Total Current Liabilities</b>	0.00	0.00	135409.09	162490.91	180545.45	180545.45
Accounts Payable	0.00	0.00	135409.09	162490.91	180545.45	180545.45
Bank Overdraft	0.00	0.00	0.00	0.00	0.00	0.00
<b>6. Total Long-term Debt</b>	399435.75	935882.68	935882.68	779902.23	623921.79	467941.34
Loan A	399435.75	935882.68	935882.68	779902.23	623921.79	467941.34
Loan B	0.00	0.00	0.00	0.00	0.00	0.00
<b>7. Total Equity Capital</b>	266290.50	623921.79	623921.79	623921.79	623921.79	623921.79
Ordinary Capital	266290.50	623921.79	623921.79	623921.79	623921.79	623921.79
Preference Capital	0.00	0.00	0.00	0.00	0.00	0.00
Subsidies	0.00	0.00	0.00	0.00	0.00	0.00
<b>8. Reserves, Retained Profits Brought Forward</b>	0.00	0.00	0.00	26201.88	269754.84	491332.39
<b>9. Net Profit After Tax</b>	0.00	0.00	26201.88	243552.96	221577.55	234679.90
Dividends Payable	0.00	0.00	0.00	0.00	0.00	0.00
Retained Profits	0.00	0.00	26201.88	243552.96	221577.55	234679.90

### Annex 5: Projected Balance Sheet (in Birr): Continued

	PRODUCTION					
	5	6	7	8	9	10
<b>TOTAL ASSETS</b>	2090222.69	2225003.21	2372886.09	2689851.77	3006817.46	3323783.14
<b>1. Total Current Assets</b>	1355672.69	1567153.21	1791736.09	2185401.77	2579067.46	2972733.14
Inventory on Materials and Supplies	59220.34	59220.34	59220.34	59220.34	59220.34	59220.34
Work in Progress	34286.26	34286.26	34286.26	34286.26	34286.26	34286.26
Finished Products in Stock	68572.53	68572.53	68572.53	68572.53	68572.53	68572.53
Accounts Receivable	180545.45	180545.45	180545.45	180545.45	180545.45	180545.45
Cash in Hand	66272.84	66272.84	66272.84	66272.84	66272.84	66272.84
Cash Surplus, Finance Available	946775.26	1158255.79	1382838.67	1776504.35	2170170.03	2563835.72
Securities	0.00	0.00	0.00	0.00	0.00	0.00
<b>2. Total Fixed Assets, Net of Depreciation</b>	734550.00	657850.00	581150.00	504450.00	427750.00	351050.00
Fixed Investment	1268050.00	1268050.00	1268050.00	1268050.00	1268050.00	1268050.00
Construction in Progress	0.00	0.00	0.00	0.00	0.00	0.00
Pre-Production Expenditure	63402.50	63402.50	63402.50	63402.50	63402.50	63402.50
Less Accumulated Depreciation	596902.50	673602.50	750302.50	827002.50	903702.50	980402.50
<b>3. Accumulated Losses Brought Forward</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>4. Loss in Current Year</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL LIABILITIES</b>	2090222.69	2225003.21	2372886.09	2689851.77	3006817.46	3323783.14
<b>5. Total Current Liabilities</b>	180545.45	180545.45	180545.45	180545.45	180545.45	180545.45
Accounts Payable	180545.45	180545.45	180545.45	180545.45	180545.45	180545.45
Bank Overdraft	0.00	0.00	0.00	0.00	0.00	0.00
<b>6. Total Long-term Debt</b>	311960.89	155980.45	0.00	0.00	0.00	0.00
Loan A	311960.89	155980.45	0.00	0.00	0.00	0.00
Loan B	0.00	0.00	0.00	0.00	0.00	0.00
<b>7. Total Equity Capital</b>	623921.79	623921.79	623921.79	623921.79	623921.79	623921.79
Ordinary Capital	623921.79	623921.79	623921.79	623921.79	623921.79	623921.79
Preference Capital	0.00	0.00	0.00	0.00	0.00	0.00
Subsidies	0.00	0.00	0.00	0.00	0.00	0.00
<b>8. Reserves, Retained Profits Brought Forward</b>	726012.29	973794.55	1264555.52	1568418.85	1885384.53	2202350.22
<b>9. Net Profit After Tax</b>	247782.26	290760.97	303863.33	316965.68	316965.68	316965.68
Dividends Payable	0.00	0.00	0.00	0.00	0.00	0.00
Retained Profits	247782.26	290760.97	303863.33	316965.68	316965.68	316965.68