Investment Office ANRS

PROJECT PROFILE ON THE ESTABLISHMENT OF FORMICA SHEETS MAKING PLANT

Development Studies Associates (DSA)

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1. Executive Summary

This profile envisages the establishment of Formica sheet producing plant. The plant has a capacity of producing 330 tons of formaica sheets per year.

The present countrywide demand is estimated at 200 tons per annum. The annual future countrywide demand is expected to grow to 326 tons in the year in the year 2018. The envisage plant will start operating below half capacity because of the limitation in demand.

The Total Initial Investment including working capital is estimated at Birr 15.83 million of which Birr 2.8 million is for plant machinery and equipments.

The plant will create employment opportunities for 52 persons.

The project is financially viable with an internal rate of return (IRR) of 28.8% and a net present value (NPV) of Birr 11,996,152 at 18 % annual discount rate.

2. Product Description and Application

Formica (veneer) sheets or decorative laminate are characterized by a hard surface which is highly resistant to damage by scratching, heat and moisture. Formica sheets are mainly used in the furniture and joinery industry. Many table tops, cupboards, drawers, and other similar furniture are made from Formica sheets. In the furniture industry, Formica sheets are replacing plywood or veneer made from wood. Formica sheets come in various colours and designs including wood grain and abstract patterns. The most popular decorative Formica sheets have one millimetres thickness of 1.2 m x 2.44m size.

High Pressure Laminate Formica sheets resist cigarette and fire, environment friendly, can be produced in any colours.

3. Market Study, Plant Capacity and Production Program

3.1 Market Study

3.1.1 Present Demand and Supply

All the Formica sheet requirements of the country are imported. The current demand is estimated to be equal to 200 tons per year. It is expected to grow at about 5% each year.

3.1.2 Projected Demand

The projected demand is shown in Table 1.

Table 1: Projected Demand

Year	Projected Demand (ton)
2008	200
2009	210
2010	221
2011	232
2012	243
2013	255
2014	268
2015	281
2016	295
2017	310
2018	326

3.1.3 Pricing and Distribution

After consulting knowledgeable people and making comparison with actual import parity quotations, the current price of Formica sheet is considered to be Birr 80, 000 per ton. Distribution of the item could be undertaken thought existing wholesale and retail

3.2 Plant Capacity

The minimum possible plant capacity is 330 tons of Formica per annum; and therefore the plant capacity is predetermined by the technology itself. It is assumed that the plant will operate in one shift a day for 275 working days per annum. The working days are set by deducting Sundays, public holidays and considering maintenance.

3.3 Production Program

Based on the nature of the demand discussed in Section 3, Production should start at low capacity level. It starts at 45% capacity and increases its capacity by 5% per annum until the seventh year. Starting from the eighth year, it will produce at capacity. However, if there exits opportunities to export, the plant may increase its capacity at earlier stages.

4. Raw Materials and Utilities

4.1 Availability and Source of Raw Materials

The main raw materials are papers such as Kraft, base and tissue papers; phenol, formaldehyde, melamine formaldehyde and industrial alcohol. The paper inputs could be obtained from local sources and the other inputs will be imported.

4.2 Annual Requirement and Cost of Raw Materials and Utilities

The main raw materials are papers such as Kraft, base and tissue papers; Bopp film, phenol formaldehyde, melamine formaldehyde and industrial alcohol. The paper inputs could be obtained from local sources and the other inputs will be imported.

Table 2: Annual Raw Material Requirement at Full Capacity

	Items	Unit	Quantity	Price
			Unit	FC
	Base paper (50-80 gm)		ton	
	Kraft paper (150-160 gm 5 layers)		ton	
Tissue paper (30gm)	ton	16	90000	
	Bopp film		pcs	
	Phenol formaldehyde		ton	
Melamine formaldehyde	ton	61	15752	960,872
		139	6000	834,000
	Total			

Note: The FCs are Customs Authority's 2007 data (CIF value + 20%), the LCs – on market study

The annual electricity, water and fuel requirement, at full capacity production, is about 1,080,000 kwh, 400m^2 1t.respectively and the total cost of utilities is estimated to be Birr 594,000 and Birr 1060, respectively.

5. Location and Site

Either Combolcha or Debre Birhan can be appropriate location for the plant. These cities are selected based of the availability of infrastructure and vicinity to greater market.

6. Technology and Engineering

6.1 Production Process

Resin preparation, impregnation, assembling, curing and finishing are the major production processes. Phenol formaldehyde and melamine formaldehyde are prepared; in the preparation plant to impregnate the Kraft paper and the decorative base paper respectively. The impregnated paper is then stored in specified conditions. The barrier paper (Kraft paper), the decorative and the tissue papers are stacked in a specified manner on 55 press plates and the curing process is carried out under controlled parameters on hydraulic press. Finally the finishing operations take place.

The available alternative technologies are based on varying degrees of automations.

6.2 Machinery and Equipment

Main machinery and equipment needed include resin preparation plant, hydraulic press, impregnating plant, curing and trimming machines, material handling equipment, vacuum press plates and laboratory and testing equipments. The details are shown in Table 3.

Table 3: Required Machineries & Equipments

No.	Description	Qty.
1	Resin preparation plant	2
2	Hydraulic press with automatic loading and	1

	unloading attachment	
3	Impregnating plant	1
4	Curing and trimming machine	2
5	Material handling(push-pull arrangement, moving trolleys, pallet trucks/forklift, etc	1set
6	Vacuum press plates (moulds, lifting device at book preparation and break down station)	1set
7	Vacuum cleaning arrangement	1set
8	Lab.& Testing equipments	1set

The total cost of machinery and equipment is about Birr 2,794,000. The machines and equipments can be imported from China.

Supplier Address:

Company Name: Maanshan Hudong Machine Tool Manufacturing Co., Ltd.
Street Address: Bowang Economic Special Zone
City: ma'anshan
Province/State: Anhui
Country/Region: China
Zip: 243131
Telephone: 86-0555-6769191
Mobile Phone: 13721222144
Fax: 86-0555-6767858
Website: http://www.ahhudong.com, http://hudong.en.alibaba.co

6.3 Civil Engineering Cost

A total of 6000 m^2 area is required, of the 4000 m^2 is built up area for production, stores and offices. The total lease value of the land is estimated at Birr 360,000 and construction and installation cost at Birr 8,000,000.

7. Human Resource and Training Requirement

7.1 Human Resource

The human resource requirement at full capacity is given in Table 4.

Table 4: Human Resource Requirements at Full Capacity

	Job Title	No.	Monthly	Annual
1	General Manger	1	4,500.00	54,000.00
2	Secretary	1	1,100.00	13,200.00
3	Production Supervisor	1	2,500.00	30,000.00
4	Accountant	1	1,600.00	19,200.00
5	Casher	1	800.00	9,600.00
6	Skilled (Operators and technicians)	10	1,800.00	216,000.00
7	Unskilled (Labourers)	20	300.00	72,000.00
8	Clerks	4	500.00	24,000.00
9	Personnel Head	1	1,600.00	19,200.00
10	Security	6	300.00	21,600.00
11	Genitor	6	300.00	21,600.00
12	**Total**	**52**		**500,400.00**
13	Employment Benefits 20% of Annual Salary			100,080.00
	Grand Total			**600,480.00**

7.2 Training Requirement

Trainings are important. Birr 60,000 is allotted in working capital for financing the trainings.

8. Financial Analysis

8.1 Underlying Assumption

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

A. Construction and Finance

Box 1: Construction and Finance

Construction period	2 year
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

Box 2: Depreciation

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

C. Working Capital (Minimum Days of Coverage)

Box 3: Working Capital

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

8.2 Investment

The Total Initial Investment is estimated at Birr 15.83 million of which Birr 2.79 million is for plant machinery and equipments. The detail is shown in Table 5.

Table 5: Initial Investment and Working Capita

Total Initial Investment	
Item	**Cost**
Land	18,000.00
Building and civil works	8,000,000.00
Office equipment	50,000.00
Vehicles	250,000.00
Plant machinery & equipment	2,794,000.00
Total Fixed Investment	***11,112,000.00***
Pre production capital expenditure*	555,600.00
Total Initial Investment	***11,667,600.00***
Working capital at full capacity	4,159,752.80
Total	***15,827,352.80***

**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.*

8.3 Production Costs

The total production cost at full capacity is estimated at Birr 19.95 million. The details are shown at Table 6.

Table 6: Production Costs at Full Capacity

Total Production Cost at Full Capacity	
Items	**Cost**
1. Raw materials	**15,104,492.00**
2. Utilities	**595,060.00**
3. Wages and Salaries	**600,480.00**
4. Spares and Maintenance	**333,360.00**
Factory costs	***16,633,392.00***
5. Depreciation	**845,520.00**
6. Financial costs	**2,467,664.49**
Total Production Cost	***19,946,576.49***

8.4 Financial Evaluation

I. Profitability

The income statement shows that the proposed project generates profit starting from the first year of operation. Profits starts at undiscounted Birr 1.03 million in first year and reach at about 6.38 million in the eight year of the project life. Gross Profit to Sales starts at 8.70% and reach at 34.55% at eight year. The total profit to be earned during the whole ten years of operation is about Birr 40.48 million. These indicators prove that the project is profitable.

II. Breakeven Analysis

The breakeven analysis shows that the Total Revenue equals the Total Cost at 7.1% of capacity which is achieved at the first year of operation.

III. Payback Period

The project pays back its initial investment at the fourth year of its operation.

IV. Simple Rate of Return

The simple interest rate is 25.3%.

V. Internal Rate of Return and Net Present Value

The Internal Rate of Return is 28.8% and the Net Present Value at 18% discount rate per annum is Birr 11,996,152.

VI. Sensitivity Analysis

A 10% reduction on sales reduced the total profit to Birr 26.42 million; while a 10% increase in priced reduces it to Birr 31.83 million.

9. Economic and Social Benefit and Justification

Based on the foregoing presentation and analysis, we can learn that the proposed project possesses wide range of benefits that complement the financial feasibility obtained earlier. In general the envisaged project promotes the socio-economic goals and objectives stated in the strategic plan of the Amhara National Regional State. These benefits are listed as follows

A. Profit Generation

The project is found to be financially viable and earns a total profit of Birr 40.48 million within the project life.

B. Tax Revenue

In the project life under consideration, the government will collect about Birr 12.64 million from corporate tax payment alone (i.e. excluding income tax, sales tax and VAT).

C. Import Substitution and Foreign Exchange Saving

The project has strong import substitution effect. Furthermore, there is a possibility to engage in international market since the product has sustainable international demand.

D. Employment and Income Generation

The proposed project is expected to create employment opportunity to 52 citizens of the country. That is, it will provide permanent employment to professionals as well as support staffs. Consequently the project creates income of Birr 600480 per year for its workers. This would be one of the commendable accomplishments of the project.

E. Diversification and InterSectoral linkage.

The proposed project helps to diversify ANRS' and Ethiopian economy. It contributes to industrialization of the region's as well as the county's economy. It has a potential to strengthen the linkage between the manufacturing and the trade sub-sectors.

ANNEXES

Annex 1: Total Net Working Capital Requirements (in Birr)						
	CONSTRUCTION		PRODUCTION YEARS			
Capacity Utilization (%)	0	0	45%	50%	55%	60%
1. Total Inventory	0	0	4,205,836	4,673,151	5,140,466	5,607,781
Raw Materials in Stock- Total	0	0	1,768,674	1,965,194	2,161,713	2,358,232
Raw Material-Local	0	0	399,100	443,444	487,788	532,133
Raw Material-Foreign	0	0	1,369,575	1,521,750	1,673,925	1,826,100
Factory Supplies in Stock	0	0	8,581	9,534	10,487	11,441
Spare Parts in Stock and Maintenance	0	0	16,365	18,183	20,002	21,820
Work in Progress	0	0	214,514	238,349	262,184	286,019
Finished Products	0	0	429,028	476,698	524,367	572,037
2. Accounts Receivables	0	0	842,400	936,000	1,029,600	1,123,200
3. Cash in Hand	0	0	58,690	65,211	71,732	78,254
CURRENT ASSETS	0	0	3,338,252	3,709,169	4,080,085	4,451,002
4. Current Liabilities	0	0	842,400	936,000	1,029,600	1,123,200
Accounts Payable	0	0	842,400	936,000	1,029,600	1,123,200
TOTAL NET WORKING CAPITAL REQUIREMENTS	0	0	2,495,852	2,773,169	3,050,485	3,327,802
INCREASE IN NET WORKING CAPITAL	0	0	2,495,852	277,317	277,317	277316.85

Annex 1: Continued						
	PRODUCTION YEARS					
Capacity Utilization (%)	65%	70%	75%	100%	100%	100%
1. Total Inventory	6,075,096	6,542,411	7,009,726	9,346,302	9,346,302	9,346,302
Raw Materials in Stock-Total	2,554,752	2,751,271	2,947,790	3,930,387	3,930,387	3,930,387
Raw Material-Local	576,477	620,822	665,166	886,888	886,888	886,888
Raw Material-Foreign	1,978,275	2,130,450	2,282,625	3,043,499	3,043,499	3,043,499
Factory Supplies in Stock	12,394	13,348	14,301	19,068	19,068	19,068
Spare Parts in Stock and Maintenance	23,638	25,457	27,275	36,367	36,367	36,367
Work in Progress	309,853	333,688	357,523	476,698	476,698	476,698
Finished Products	619,707	667,377	715,046	953,395	953,395	953,395
2. Accounts Receivables	1,216,800	1,216,800	1,216,800	1,216,800	1,216,800	1,216,800
3. Cash in Hand	84,775	91,296	97,817	130,423	130,423	130,423
CURRENT ASSETS	4,821,919	5,099,236	5,376,553	6,763,137	6,763,137	6,763,137
4. Current Liabilities	1,216,800	1,216,800	1,216,800	1,216,800	1,216,800	1,216,800
Accounts Payable	1,216,800	1,216,800	1,216,800	1,216,800	1,216,800	1,216,800
TOTAL NET WORKING CAPITAL REQUIREMENTS	3,605,119	3,882,436	4,159,753	5,546,337	5,546,337	5,546,337
INCREASE IN NET WORKING CAPITAL	277316.85	277316.85	277316.85	1386584.3	0	0

Annex 2: Cash Flow Statement (in Birr)						
	CONSTRUCTION		PRODUCTION YEARS			
TOTAL CASH INFLOW	5,833,800	9,993,553	12,722,400	13,293,600	14,613,600	15,933,600
1. Inflow Funds	5,833,800	9,993,553	842,400	93,600	93,600	93600
Total Equity	2,333,520	3,997,421	0	0	0	0
Total Long Term Loan	3,500,280	5,996,132	0	0	0	0
Total Short Term Finances	0	0	842,400	93,600	93,600	93600
2. Inflow Operation	0	0	11,880,000	13,200,000	14,520,000	15,840,000
Sales Revenue	0	0	11,880,000	13,200,000	14,520,000	15,840,000
Interest on Securities	0	0	0	0	0	0
3. Other Income	0	0	0	0	0	0
TOTAL CASH OUTFLOW	5,833,800	5,833,800	13,339,256	11,450,302	13,147,320	13,986,989
4. Increase In Fixed Assets	5,833,800	5,833,800	0	0	0	0
Fixed Investments	5,556,000	5,556,000	0	0	0	0
Pre-production Expenditures	277,800	277,800	0	0	0	0
5. Increase in Current Assets	0	0	3,338,252	370,917	370,917	370916.85
6. Operating Costs	0	0	7,533,340	8,357,081	9,180,822	10,004,563
7. Corporate Tax Paid	0	0	0	0	1,063,205	1,269,061
8. Interest Paid	0	0	2,467,664	1,139,569	949,641	759,713
9.Loan Repayments	0	0	0	1,582,735	1,582,735	1,582,735
10.Dividends Paid	0	0	0	0	0	0
Surplus Deficit)	0	4,159,753	-616,856	1,843,298	1,466,280	1,946,611
Cumulative Cash Balance	0	4,159,753	3,542,897	5,386,195	6,852,475	8,799,086

Annex 2: Continued						
	PRODUCTION YEARS					
TOTAL CASH INFLOW	17,253,600	18,480,000	19,800,000	26,400,000	26,400,000	26,400,000
1. Inflow Funds	93600	0	0	0	0	0
Total Equity	0	0	0	0	0	0
Total Long Term Loan	0	0	0	0	0	0
Total Short Term Finances	93600	0	0	0	0	0
2. Inflow Operation	17,160,000	18,480,000	19,800,000	26,400,000	26,400,000	26,400,000
Sales Revenue	17,160,000	18,480,000	19,800,000	26,400,000	26,400,000	26,400,000
Interest on Securities	0	0	0	0	0	0
3. Other Income	0	0	0	0	0	0
TOTAL CASH OUTFLOW	14,826,658	15,621,063	16,460,732	20,717,408	19,330,824	19,330,824
4. Increase In Fixed Assets	0	0	0	0	0	0
Fixed Investments	0	0	0	0	0	0
Pre-production Expenditures	0	0	0	0	0	0
5. Increase in Current Assets	370916.85	277316.85	277316.85	1386584.3	0	0
6. Operating Costs	10,828,304	11,652,045	12,475,786	16,594,491	16,594,491	16,594,491
7. Corporate Tax Paid	1,474,917	1,729,110	1,934,966	2,736,333	2,736,333	2,736,333
8. Interest Paid	569,785	379,856	189,928	0	0	0
9. Loan Repayments	1,582,735	1,582,735	1,582,735	0	0	0
10.Dividends Paid	0	0	0	0	0	0
Surplus Deficit)	2,426,942	2,858,937	3,339,268	5,682,592	7,069,176	7,069,176
Cumulative Cash Balance	11,226,028	14,084,965	17,424,233	23,106,825	30,176,001	37,245,177

Annex 3: Discounted Cash Flow-Total Capital Invested (Birr)						
	CONSTRUCTION		PRODUCTION YEARS			
TOTAL CASH INFLOW	0	0	11,880,000	13,200,000	14,520,000	15,840,000
1. Inflow Operation	0	0	11,880,000	13,200,000	14,520,000	15,840,000
Sales Revenue	0	0	11,880,000	13,200,000	14,520,000	15,840,000
Interest on Securities	0	0	0	0	0	0
2. Other Income	0	0	0	0	0	0
TOTAL CASH OUTFLOW	5,833,800	5,833,800	10,029,191	8,634,397	9,458,138	11,550,941
3. Increase in Fixed Assets	5,833,800	5,833,800	0	0	0	0
Fixed Investments	5,556,000	5,556,000	0	0	0	0
Pre-production Expenditures	277,800	277,800	0	0	0	0
4. Increase in Net Working Capital	0	0	2,495,852	277,317	277,317	277316.8534
5. Operating Costs	0	0	7,533,340	8,357,081	9,180,822	10,004,563
6. Corporate Tax Paid	0	0	0	0	0	1,269,061
NET CASH FLOW	-5,833,800	-5,833,800	1,850,809	4,565,603	5,061,862	4,289,059
CUMULATIVE NET CASH FLOW	-5,833,800	-11,667,600	-9,816,791	-5,251,189	-189,327	4,099,732
Net Present Value (at 18%)	-5,833,800	-4,943,898	1,329,222	2,778,767	2,610,852	1,874,787
Cumulative Net present Value	-5,833,800	-10,777,698	-9,448,476	-6,669,710	-4,058,858	-2,184,070

Annex 3: Continued						
	PRODUCTION YEARS					
TOTAL CASH INFLOW	17,160,000	18,480,000	19,800,000	26,400,000	26,400,000	26,400,000
1. Inflow Operation	17,160,000	18,480,000	19,800,000	26,400,000	26,400,000	26,400,000
Sales Revenue	17,160,000	18,480,000	19,800,000	26,400,000	26,400,000	26,400,000
Interest on Securities	0	0	0	0	0	0
2. Other Income	0	0	0	0	0	0
TOTAL CASH OUTFLOW	12,580,538	13,658,471	14,688,068	20,717,408	19,330,824	19,330,824
3. Increase in Fixed Assets	0	0	0	0	0	0
Fixed Investments	0	0	0	0	0	0
Pre-production Expenditures	0	0	0	0	0	0
4. Increase in Net Working Capital	277316.8534	277316.8534	277316.8534	1386584.267	0	0
5. Operating Costs	10,828,304	11,652,045	12,475,786	16,594,491	16,594,491	16,594,491
6. Corporate Tax Paid	1,474,917	1,729,110	1,934,966	2,736,333	2,736,333	2,736,333
NET CASH FLOW	4,579,462	4,821,529	5,111,932	5,682,592	7,069,176	7,069,176
CUMULATIVE NET CASH FLOW	8,679,194	13,500,723	18,612,654	24,295,246	31,364,422	38,433,599
Net Present Value (at 18%)	1,696,377	1,513,599	1,359,969	1,281,175	1,350,668	1,144,634
Cumulative Net present Value	-487,693	1,025,905	2,385,874	3,667,049	5,017,717	6,162,352
Net Present Value (at 18%)	**11996151.65**					
Internal Rate of Return	**29%**					

Annex 4: NET INCOME STATEMENT (in Birr)					
	PRODUCTION YEARS				
	1	2	3	4	5
Capacity Utilization (%)	45%	50%	55%	60%	65%
1. Total Income	11,880,000	13,200,000	14,520,000	15,840,000	17,160,000
Sales Revenue	11,880,000	13,200,000	14,520,000	15,840,000	17,160,000
Other Income	0	0	0	0	0
2. Less Variable Cost	7,305,583	8,117,315	8,929,046	9,740,777	10,552,509
VARIABLE MARGIN	4,574,417	5,082,685	5,590,954	6,099,223	6,607,491
(In % of Total Income)	38.5	38.5	38.5	38.5	38.5
3. Less Fixed Costs	1,073,276	1,085,286	1,097,296	1,109,305	1,121,315
OPERATIONAL MARGIN	3,501,140	3,997,399	4,493,658	4,989,917	5,486,176
(In % of Total Income)	29.5	30.3	30.9	31.5	32.0
4. Less Cost of Finance	2,467,664	1,139,569	949,641	759,713	569,785
5. GROSS PROFIT	1,033,476	2,857,830	3,544,017	4,230,204	4,916,392
6. Income (Corporate) Tax	0	0	1063205.165	1,269,061	1,474,917
7. NET PROFIT	1,033,476	2,857,830	2,480,812	2,961,143	3,441,474
RATIOS (%)					
Gross Profit/Sales	8.70%	21.65%	24.41%	26.71%	28.65%
Net Profit After Tax/Sales	8.70%	21.65%	17.09%	18.69%	20.06%
Return on Investment	24.72%	27.68%	23.31%	24.81%	26.26%
Return on Equity	16.32%	45.14%	39.19%	46.77%	54.36%

Annex 4: Continued					
	PRODUCTION YEARS				
	6	7	8	9	10
Capacity Utilization (%)	70%	75%	100%	100%	100%
1. Total Income	18,480,000	19,800,000	26,400,000	26,400,000	26,400,000
Sales Revenue	18,480,000	19,800,000	26,400,000	26,400,000	26,400,000
Other Income	0	0	0	0	0
2. Less Variable Cost	11,364,240	12,175,972	16,234,629	16,234,629	16,234,629
VARIABLE MARGIN	7,115,760	7,624,028	10,165,371	10,165,371	10,165,371
(In % of Total Income)	38.5	38.5	38.5	38.5	38.5
3. Less Fixed Costs	972,204	984,214	1,044,262	1,044,262	1,044,262
OPERATIONAL MARGIN	6,143,555	6,639,814	9,121,109	9,121,109	9,121,109
(In % of Total Income)	33.2	33.5	34.5	34.5	34.5
4. Less Cost of Finance	379,856	189,928	0	0	0
5. GROSS PROFIT	5,763,699	6,449,886	9,121,109	9,121,109	9,121,109
6. Income (Corporate) Tax	1,729,110	1,934,966	2,736,333	2,736,333	2,736,333
7. NET PROFIT	4,034,589	4,514,920	6,384,776	6,384,776	6,384,776
RATIOS (%)					
Gross Profit/Sales	31.19%	32.58%	34.55%	34.55%	34.55%
Net Profit After Tax/Sales	21.83%	22.80%	24.18%	24.18%	24.18%
Return on Investment	28.39%	29.73%	37.09%	37.09%	37.09%
Return on Equity	63.73%	71.32%	100.85%	100.85%	100.85%

Annex 5: Projected Balance Sheet (in Birr)						
	CONSTRUCTION		PRODUCTION YEARS			
TOTAL ASSETS	5,833,800	15,827,353	17,703,229	19,071,924	20,063,600	21,535,608
1. Total Current Assets	0	4,159,753	6,881,149	9,095,364	10,932,560	13,250,088
Inventory on Materials and Supplies	0	0	1,793,620	1,992,911	2,192,202	2,391,493
Work in Progress	0	0	214,514	238,349	262,184	286,019
Finished Products in Stock	0	0	429,028	476,698	524,367	572,037
Accounts Receivables	0	0	842,400	936,000	1,029,600	1,123,200
Cash in Hand	0	0	58,690	65,211	71,732	78,254
Cash Surplus, Finance Available	0	4,159,753	3,542,897	5,386,195	6,852,475	8,799,086
Securities	0	0	0	0	0	0
2. Total Fixed Assets, Net of Depreciation	5,833,800	11,667,600	10,822,080	9,976,560	9,131,040	8,285,520
Fixed Investment	0	5,556,000	11,112,000	11,112,000	11,112,000	11,112,000
Construction in Progress	5,556,000	5,556,000	0	0	0	0
Pre-Production Expenditure	277,800	555,600	555,600	555,600	555,600	555,600
Less Accumulated Depreciation	0	0	845,520	1,691,040	2,536,560	3,382,080
3. Accumulated Losses Brought Forward	0	0	0	0	0	0
4. Loss in Current Year	0	0	0	0	0	0
TOTAL LIABILITIES	5,833,800	15,827,353	17,703,229	19,071,924	20,063,600	21,535,608
5. Total Current Liabilities	0	0	842,400	936,000	1,029,600	1,123,200
Accounts Payable	0	0	842,400	936,000	1,029,600	1,123,200
Bank Overdraft	0	0	0	0	0	0
6. Total Long-term Debt	3,500,280	9,496,412	9,496,412	7,913,676	6,330,941	4,748,206
Loan A	3,500,280	9,496,412	9,496,412	7,913,676	6,330,941	4,748,206
Loan B	0	0	0	0	0	0
7. Total Equity Capital	2,333,520	6,330,941	6,330,941	6,330,941	6,330,941	6,330,941
Ordinary Capital	2,333,520	6,330,941	6,330,941	6,330,941	6,330,941	6,330,941
Preference Capital	0	0	0	0	0	0
Subsidies	0	0	0	0	0	0
8. Reserves, Retained Profits Brought Forward	0	0	0	1,033,476	3,891,306	6,372,118
9.Net Profit After Tax	0	0	1,033,476	2,857,830	2,480,812	2,961,143
Dividends Payable	0	0	0	0	0	0
Retained Profits	0	0	1,033,476	2,857,830	2,480,812	2,961,143

Annex 5: Continued						
	PRODUCTION YEARS					
TOTAL ASSETS	23,487,947	25,939,801	28,871,986	35,256,762	41,641,538	48,026,314
1. Total Current Assets	16,047,947	19,184,201	22,800,786	29,869,962	36,939,138	44,008,314
Inventory on Materials and Supplies	2,590,784	2,790,075	2,989,366	3,985,822	3,985,822	3,985,822
Work in Progress	309,853	333,688	357,523	476,698	476,698	476,698
Finished Products in Stock	619,707	667,377	715,046	953,395	953,395	953,395
Accounts Receivables	1,216,800	1,216,800	1,216,800	1,216,800	1,216,800	1,216,800
Cash in Hand	84,775	91,296	97,817	130,423	130,423	130,423
Cash Surplus, Finance Available	11,226,028	14,084,965	17,424,233	23,106,825	30,176,001	37,245,177
Securities	0	0	0	0	0	0
2. Total Fixed Assets, Net of Depreciation	7,440,000	6,755,600	6,071,200	5,386,800	4,702,400	4,018,000
Fixed Investment	11,112,000	11,112,000	11,112,000	11,112,000	11,112,000	11,112,000
Construction in Progress	0	0	0	0	0	0
Pre-Production Expenditure	555,600	555,600	555,600	555,600	555,600	555,600
Less Accumulated Depreciation	4,227,600	4,912,000	5,596,400	6,280,800	6,965,200	7,649,600
3. Accumulated Losses Brought Forward	0	0	0	0	0	0
4. Loss in Current Year	0	0	0	0	0	0
TOTAL LIABILITIES	23487947	25939801	28871986	35256762	41641538	48026314
5. Total Current Liabilities	1216800	1216800	1216800	1216800	1216800	1216800
Accounts Payable	1216800	1216800	1216800	1216800	1216800	1216800
Bank Overdraft	0	0	0	0	0	0
6. Total Long-term Debt	3,165,471	1,582,735	0	0	0	0
Loan A	3,165,471	1,582,735	0	0	0	0
Loan B	0	0	0	0	0	0
7. Total Equity Capital	6,330,941	6,330,941	6,330,941	6,330,941	6,330,941	6,330,941
Ordinary Capital	6,330,941	6,330,941	6,330,941	6,330,941	6,330,941	6,330,941
Preference Capital	0	0	0	0	0	0
Subsidies	0	0	0	0	0	0
8. Reserves, Retained Profits Brought Forward	9,333,261	12,774,735	16,809,324	21,324,245	27,709,021	34,093,797
9. Net Profit After Tax	3,441,474	4,034,589	4,514,920	6,384,776	6,384,776	6,384,776
Dividends Payable	0	0	0	0	0	0
Retained Profits	3,441,474	4,034,589	4,514,920	6,384,776	6,384,776	6,384,776