

SECTION 1.0 EXECUTIVE SUMMARY

1. General

This project document gives details on an investment proposal by *San Hao Group Company Limited* for improving gypsum mining and crushing operations at its gypsum site in Mwanambaya, in Mkuranga district and for establishment of gypsum powder and board production facilities. This is new company that wants to satisfy the existing demand for various contracts the company receives from various clients, including Tanzania Portland Cement Company Limited. The company wants to diversify into other gypsum products including gypsum powder and gypsum boards which are high value products and whose market is growing in the country, particularly in the building construction sub-sector.

SAN HAO GROUP COMPANY LIMITED is therefore applying for a certificate of incentive to import into the country the range of machinery required to produce gypsum powder and board and light and heavy duty distribution vehicles and construction of the factory building for the plants. The total new investment cost is estimated at USD 308,000 to be financed through equity contribution by the company. The FDI of USD 308,000 is to

be repaid over a period of 5 years inclusive of a grace period of one (1) year for construction, installation and commissioning of production plants. It is proposed that the FDI will attract an interest rate not exceeding 10% per annum.

2. Mining and Processing

The Primary Mining Licence and plant will be at *Mwanambaya, in Mkuranga district.*

The mining method applied involves stripping of waste to expose the layer of gypsum ore which may be loosened by ripping by a dozer or by excavation with a backhoe mini-excavator. Blasting could be used to loosen the bedrock. Gypsum ore processing will involve feeding the raw ore into a crusher to produce gypsum aggregates, which are then to be transported to the gypsum powder and board manufacturing plants on site.

3. Market Potential and Competition

There is a significant growth of demand for gypsum powder and gypsum boards in the country as a result of a growing building construction industry and interest in aesthetic materials in residential houses for most customers. There is also an opportunity for supplying the products to neighbouring countries for which recent market research conducted by the project promoters has revealed high demand for gypsum products building construction.

High quality products from the proposed manufacturing plants to be erected in Dar es Salaam will enable the company to effectively compete in the local market and venture into the neighbouring markets of Rwanda, Burundi and Uganda.

The company will use existing gypsum powder and gypsum boards suppliers in the country and especially in Dar es Salaam to distribute and sell its products. Timely availability from the company production units and high quality products obtainable at affordable prices will be strong incentives for local suppliers to source the products from the company instead of importing inferior quality products.

Major importers of gypsum powder in the country, which will be the main competitors for the project, include the following:

- *Msindika Stores Limited* of Dar es Salaam who source the product from Thailand and Malaysia
- *Tanzania Gypsum Limited* of Dar es Salaam also sourcing the product from Thailand and Malaysia
- *Nabaki Afrika Limited* of Dar es Salaam whose product source is India and China
- *Border Limited*, a Chinese company whose source is the Peoples Republic of China
- *Sunda Limited*, a Chinese company sourcing the product from the Peoples Republic of China
- *Mbuyeku Limited* of Dar es Salaam, sourcing its products from China and South Africa

- *DNY Limited* of Dar es Salaam which sources the product from South Africa, and
- *Mkumbara Saw Mills Limited* of Mombo in Tanga, which sources the product locally.

4. Investment Costs

The new investment cost for the proposed project plus the purchase of the gypsum board and powder production machines, light and heavy duty distribution vehicles is estimated at **USD 308,000** distributed as presented in *Appendix 1* and as summarised below:

PROJECT INVESTMENT in USD

New Equipment			
Gypsum Board Production Machine	1	45,799	45,799
Gypsum Powder Production Machine	1	29,175	29,175
Steel Structure	1	60,673	60,673
Gypsum Board Production Machine	1	28,650	28,650
Steel Bar Truss deck line	1	16,688	16,688
Stone Coated line	1	8,753	8,753
Standby generator 800 KVA	1	29,992	29,992
Vehicles (Heavy duty Trucks)	2	44,135	88,270
TOTAL NEW INVESTMENT			308,000
Other Company Assets			
Land & Buildings			120,000
Office Furniture & Equipment			28,805
Motor Vehicles			-
TOTAL ASSETS			456,804

5. **Financing Plan**

The financing of the new investment costs table above whose total cost is estimated at USD 308,000 is proposed to be in the form of equity contribution by the company. The FDI of USD 308,000 is to be repaid over a period of 6 years inclusive of a grace period of one (1) year for construction, installation and commissioning of production plants. It is proposed that the FDI will attract an interest rate not exceeding 10% per annum as indicated in *Appendix 3*.

6. **Revenue Projections**

Revenue projections are based on the following assumptions:

- The gypsum crusher has a production capacity of 250 metric tonnes per hour.
- The gypsum aggregates production plant will operate on a single shift of 8 hours a day
- The aggregates plant will operate for 20 days per month, for a period of 10 months per annum, other days being reserved for maintenance purposes and holidays.
- The gypsum aggregates production plant will operate on a capacity utilization of 75% during the first year of its operation, increasing to 80% during the second year and 85% from the third year onwards.
- 100% of the gypsum aggregates produced will be used to produce gypsum powder (116%) and gypsum board (76%), whereas 8% is assumed as spoilages.
- Another 100% of the gypsum aggregates produced will be used for production of white cement (98%) whereas 2% is assumed as

spoilage.

- The gypsum powder and board manufacturing machines and the white cement manufacturing machine are projected to operate at a capacity utilization of 85% during the first year of its operation, increasing to 90% during the second year and 95% from the third year onwards.
- The quantities of gypsum powder, gypsum board and white cement sold each year are projected to increase from 75% of the total quantities produced during the first year of operations to 80% during the second year and 85% from the third year onwards.
- Selling prices are projected at USD 323 per metric tonne for gypsum powder, USD 493 per metric tonne for gypsum board

Revenue from *gypsum powder* is projected to increase from USD 29.9 million in the first year, to USD 36.1 million in the second year and USD 43.0 million in the third year the third year onwards.

Revenue from *gypsum board* is projected to increase from USD 39.5 million in the first year, to USD 55.3 million in the second year and USD 74.4 million from the forth year onwards.

Total project revenue is projected to increase from 69.4 million in the first year, to 91.4 million in the second year and USD 117.5 million from the third year onwards as indicated in *Appendix 5*.

Gross operating income is projected to increase from 35.4 million in the first year, to 46.6 million in the second year and 59.8 million from the fourth year onwards.

Gross operating profit is projected to increase from 33.6 million in the first year, to USD 44.3 million in the second year and USD 56.9 million from the fourth year onwards.

Profits after taxation are projected to start at USD 33.5 million in the first year, increasing to USD 42.3 million in the third year, USD 52.9 million in the fourth year, USD 56.8 million in year 6.

Accumulated retained earnings are projected to increase from USD 23.5million in the first year to USD 211.0 million in the sixth year as shown in *Appendix 8*.

7. Project Liquidity

The proposed project is very profitable. It generates positive net cashflows from the first year of operations with net cashflow of USD 456,804. Positive net cashflows are recorded in each year of operation. Consequently, due to its sound liquidity, the project will be capable of comfortably repaying its FDI liabilities (principal repayment) starting from the second year of operations onwards and still retain adequate funds each year for its operations. Cashflow projections are presented in *Appendix 9*.

The project is able to achieve an attractive payback period of 7 months as indicated in *Appendix 10*. That is to say the whole investment (new and existing assets) cost of USD 456,804 will fully be recouped in that period.

Break-even revenue is projected at USD 35,806,651 with a break-even production capacity utilization of 51.59% as shown in *Appendix 11*.

8. Internal Rate of Return and Sensitivity Analysis

Through the Discounted Cash Flow (DCF) method (*Appendix 12*) the project realizes an attractive Internal Rate of Return (*IRR*) of **67.59%** which is very much above the cost of capital in the economy. This indicates that the project is very financially viable.

9. Economic and Social Benefits

The successful operation of the gypsum mining, crushing and gypsum powder, board and white cement production project to be operated by *San Hao Group Company Limited* will have significant economic and social benefits to the country as a whole. In summary, some of the benefits which will be realized include:

- (i) Creation of permanent employment opportunities for over 21 Tanzania employees.
- (ii) The project will be an import substitution venture in the sense that less white cement, gypsum board and powder will be imported from outside the country.
- (iii) The neighbourhood of the project will benefit domestic lighting from

- the electrification of the factory.
- (iv) Feeder roads leading to the factory from the gypsum pits will be frequently repaired by the project hence affording easy transportation of goods and people around the project.
 - (v) Provision of income to employees and other service providers (individual entrepreneurs) thus contributing to Government efforts in improving citizens' living standards.
 - (vi) Provision of a new market for food products and other goods required at the mining site, thus generating an economic multiplier effect to the project area and surrounding areas.
 - (vii) Provision of revenue to the Government through corporate tax. It is projected that the project will contribute a total of USD 90.4 million to the Treasury in the form of corporate tax over a period of six years, which implies an annual average of USD 15 million.

10. Conclusions and Recommendations

This project document has provided descriptions of a detailed investment proposal by *SAN HAO GROUP COMPANY LIMITED* for establishment and operating facilities for gypsum mining, crushing and production of gypsum powder and board from its gypsum deposits in Mwanambaya, in Mkuranga district.

The company is seeking for a certificate of incentive from Tanzania Investment centre *to* import the range of machinery for the investment

project.

Through the various parameters, which have been considered, it has been established that the proposed project is technically feasible, financially viable, and economically and socially beneficial.

In view of the above intended investment, San Hao Group Company Limited is hereby applying for a Certificate of Incentives from the Tanzania Investment Centre (TIC) under Section 17 of the Tanzania Investment Act and Part IV of the Investment Regulations 2002. It is therefore recommended that the Tanzania Investment Centre (TIC) provide the necessary support to the company by approving this application for Certificate of Incentives.

SAN HAO GROUP LIMITED

**BUSINESS PROPOSAL FOR GYPSUM POWDER AND BOARD
FOR
TANZANIA INVESTMENT CENTRE**

APPENDIX 1

PROJECT INVESTMENT		USD/Tshs	USD
ITEM			
Applied Exchange Rate		2,190	
New Equipment			
Gypsum Board Production Machine	1	45,799	45,799
Gypsum Powder Production Machine	1	29,175	29,175
Steel Structure	1	60,673	60,673
Gypsum Board Production Machine	1	28,650	28,650
Steel Bar Truss deck line	1	16,688	16,688
Stone Coated line	1	8,753	8,753
Standby generator 800 KVA	1	29,992	29,992
Vehicles (Heavy duty Trucks)	2	88,270	88,270
TOTAL NEW INVESTMENT			308,000
Other Company Assets			
Land & Buildings			120,000
Office Furniture & Equipment			28,805
Motor Vehicles			-
TOTAL ASSETS			148,805
			456,804

DEPRECIATION SCHEDULE in USD

ITEM	RATE	APPENDIX 2					
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Land and Buildings							
Opening Balance	4% DV	120,000	115,200	110,592	106,168	101,922	97,845
Additions		-	-	-	-	-	-
Annual Depreciation	4.0%	4,800	4,608	4,424	4,247	4,077	3,914
Closing Balance		115,200	110,592	106,168	101,922	97,845	93,931
Motor Vehicles							
Opening Balance	25% SL	22,068	22,068	16,551	12,413	9,310	24,360
Additions		-	-	-	-	23,171	-
Annual Depreciation	25.0%	-	5,517	4,138	3,103	8,120	6,090
Closing Balance		22,068	16,551	12,413	9,310	24,360	18,270
Plant Equipment							
Opening Balance	12.5% DV	308,000	269,500	235,912	206,336	180,544	157,976
Additions		-	-	-	-	-	-

APPENDIX 4 A

Production Plan	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Quantity of Gypsum Aggregates Produced per hour (Metric Tons)						
Hours of production per Shift	250					
Number of Shifts per Day	8					
Production of Gypsum Aggregates per day (Metric Tons)	1					
Working days per Month	2,000					
Number of Operational Months per Annum	20					
Quantity of Aggregates Produced per Annum (Metric Tonnes)	10					
Production Capacity Utilization	75%	80%	85%	85%	85%	85%
Quantity of Aggregates produced per annum (Metric Tonnes)	300,000	320,000	340,000	340,000	340,000	340,000

APPENDIX 4 B

Gypsum Aggregates Production Costs in USD	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Production cost per metric tonne in Tshs	2	532	568	603	603	603
Tarroad Costs in USD per metric tonne	1	384	410	436	436	436
Loading cost at mining site per metric tonne in Tshs	0	135	143	152	152	152
Transportation cost from mining site to crushing factory per metric tonne in Tshs	2	570	608	646	646	646
Environmental Charges per metric tonne in Tshs	0	34	36	38	38	38
Total costs per metric tonne produced at crushing factory in Tshs	6	1,655	1,765	1,875	1,875	1,875
Total production costs for Gypsum Aggregates per metric tonne in USD	6	1,655	1,765	1,875	1,875	1,875

APPENDIX 4 C

Production Plan (Gypsum Powder & Board) in metric	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Quantity of Gypsum Aggregates Required	400,000	300,000	320,000	340,000	340,000	340,000
Production Capacity Utilization	100%	85%	90%	95%	95%	95%
Quantity of Gypsum Powder Produced (Metric Tons)	194,000	123,675	139,680	156,655	156,655	156,655

Quantity of Gypsum Board Produced (Me	55%	106,700	140,250	158,400	177,650	177,650	177,650	177,650
APPENDIX 4 D								
Production Plan (White Cement)			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Quantity of Gypsum Aggregates Required	100%	400,000	300,000	320,000	340,000	340,000	340,000	340,000
Production Capacity Utilization			85%	90%	95%	95%	95%	95%
Quantity of White Cement Produced (Met	98%	392,000	249,900	282,240	316,540	316,540	316,540	316,540

SCENARIO 1: THE BASE CASE

APPENDIX 5								
Income Statement in USD								
Sales			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Quantity of Gypsum Powder Produced (Metric Tons)			123,675	139,680	156,655	156,655	156,655	156,655
Percent of Gypsum Powder sold			75%	80%	85%	85%	85%	85%
Quantity of Gypsum Powder sol (Metric Tons)			92,756	111,744	133,157	133,157	133,157	133,157
Selling Price in USD		323						
Sales Gypsum Powder in USD			29,960,269	36,093,312	43,009,630	43,009,630	43,009,630	43,009,630
Quantity of Gypsum Board Produced (Metric Tons)								
Quantity of Gypsum Board sold			106,700	140,250	158,400	177,650	177,650	177,650
Percent of Gypsum Board sold			75%	80%	85%	85%	85%	85%
Quantity of Gypsum Board Produced (Metric Tons)			80,025	112,200	134,640	151,003	151,003	151,003
Selling Price per Tonne in USD		493						
Sales Gypsum Board in USD			39,452,325	55,314,800	66,377,520	74,444,233	74,444,233	74,444,233
Total Annual Sales in USD			69,412,594	91,407,912	109,387,150	117,453,863	117,453,863	117,453,863

APPENDIX 6								
Production Costs for Gypsum Powder and Board, White Cement in USD								
Loading cost at site per metric tonne in Tshs	Turnover		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Tanroad Costs in USD per metric tonne	Turnover	0.10%	69,413	91,408	109,387	117,454	117,454	117,454
Fuel consumption of plant	Turnover	0.50%	347,063	457,040	546,936	587,269	587,269	587,269
Extra Vehicles Hiring Expenses	Turnover	15.00%	10,411,889	13,711,187	16,408,073	17,618,079	17,618,079	17,618,079
Drivers & Turnboys allowances	Turnover	5.50%	3,817,693	5,027,435	6,016,293	6,459,962	6,459,962	6,459,962
Environmental Charges per metric tonne in Tshs	Turnover	0.50%	347,063	457,040	546,936	587,269	587,269	587,269
Plant Fuel consumption (Standby Generator)	Turnover	0.20%	138,625	182,816	218,774	234,908	234,908	234,908
Water and Electricity Costs	Turnover	1.50%	1,041,189	1,371,119	1,640,807	1,761,808	1,761,808	1,761,808
Packaging Materials	Turnover	3.00%	2,082,378	2,742,237	3,281,615	3,523,616	3,523,616	3,523,616
Production Labour Costs	Turnover	5.00%	3,470,630	4,570,396	5,469,358	5,872,693	5,872,693	5,872,693
	Turnover	6.00%	4,164,756	5,484,475	6,563,229	7,047,232	7,047,232	7,047,232

Repair and Maintenance (Mining Equipments)	Turnover	2.75%	1,908,846	2,513,718	3,008,147	3,229,981	3,229,981	3,229,981
Repair and Maintenance (Crushing factory)	Turnover	1.50%	1,041,189	1,371,119	1,640,807	1,761,808	1,761,808	1,761,808
Repair and Maintenance (Manufacturing plant)	Turnover	7.50%	5,205,945	6,855,593	8,204,036	8,809,040	8,809,040	8,809,040
Total production and transportation costs in USD			34,046,877	44,835,581	53,654,397	57,611,120	57,611,120	57,611,120

SCENARIO 1: THE BASE CASE

Admin Expenses in USD

APPENDIX 7

Management Salaries & Wages

Salaries & Wages	Number	USD per month	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Managing Director	1	2,000	24,000	24,000	27,600	27,600	31,740	36,501
Accountant	1	1,500	18,000	18,000	20,700	20,700	23,805	27,376
Secretary	1	500	6,000	6,000	6,900	6,900	7,935	9,125
Cashier	2	500	12,000	12,000	13,800	13,800	15,870	18,251
Project Supervisors	4	1,000	48,000	48,000	55,200	55,200	63,480	73,002
Drivers	2	500	12,000	12,000	13,800	13,800	15,870	18,251
Turn boys	2	300	7,200	7,200	8,280	8,280	9,522	10,950
Mechanics	2	700	16,800	16,800	19,320	19,320	22,218	25,551
Assistant Mechanics	2	400	9,600	9,600	11,040	11,040	12,696	14,600
Office Attendant	1	300	3,600	3,600	4,140	4,140	4,761	5,475
Security Guards	3	300	10,800	10,800	12,420	12,420	14,283	16,425
Add: 30% Social Benefits			50,400	50,400	57,960	57,960	66,654	76,652
Total Salaries & Wages	21		218,400	218,400	251,160	251,160	288,834	332,159

Other Admin Expenses

Insurance	1.00%	Turnover	694,126	914,079	1,093,872	1,174,539	1,174,539	1,174,539
Distribution Expenses	0.30%	Turnover	208,238	274,224	328,161	352,362	352,362	352,362
Rental Charges (Office/ Godown/shops)	Per Month	1,000	12,000	13,800	15,870	18,251	20,988	24,136
Local Government Levies	0.10%	Turnover	69,413	91,408	109,387	117,454	117,454	117,454
General Office Expenses	1%		2,184	2,184	2,512	2,512	2,888	3,322
Security Expenses	0.02%	Turnover	13,883	18,282	21,877	23,491	23,491	23,491
Travelling Expenses	0.15%	Turnover	104,119	137,112	164,081	176,181	176,181	176,181
Meal Allowances	0.25%	Turnover	173,531	228,520	273,468	293,635	293,635	293,635
Medical Expenses	0.15%	Turnover	104,119	137,112	164,081	176,181	176,181	176,181
Marketing Expenses	0.25%	Turnover	173,531	228,520	273,468	293,635	293,635	293,635

Total Other Admin Expenses	1,555,144	2,045,240	2,446,776	2,628,238	2,631,352	2,634,934
Total Administrative Expenses in USD	1,773,544	2,263,640	2,697,936	2,879,398	2,920,186	2,967,093

SCENARIO 1: THE BASE CASE

PROJECTED INCOME STATEMENT in USD

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Revenue	69,412,594	91,407,912	109,387,150	117,453,863	117,453,863	117,453,863
Direct Expenses						
Production Costs (Crushing Plant)	1,655	1,765	1,875	1,875	1,875	1,875
Production Costs (Manufacturing Plant)	34,046,877	44,835,581	53,654,397	57,611,120	57,611,120	57,611,120
Total Direct Expenses	34,048,532	44,837,346	53,656,273	57,612,995	57,612,995	57,612,995
Gross Operating Income	35,364,062	46,570,566	55,730,878	59,840,868	59,840,868	59,840,868
Administration Expenses	1,773,544	2,263,640	2,697,936	2,879,398	2,920,186	2,967,093
Gross Operating Profit	33,590,518	44,306,926	53,032,941	56,961,470	56,920,681	56,873,775
Finance & Capital Charges						
Depreciation	46,901	46,963	40,795	35,554	36,876	31,598
Total Finance & Capital Charges	46,901	46,963	40,795	35,554	36,876	31,598
Profit before Tax	33,543,618	44,259,964	52,992,147	56,925,916	56,883,806	56,842,177
Taxation (30%)	10,063,085	13,277,989	15,897,644	17,077,775	17,065,142	17,052,653
Profit after Tax	23,480,532	30,981,974	37,094,503	39,848,141	39,818,664	39,789,524
Accumulated Retained Earnings	23,480,532	54,462,507	91,557,010	131,405,151	171,223,815	211,013,339

SCENARIO 1: THE BASE CASE

PROJECTED CASHFLOW STATEMENT in USD

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cashflow from Operations:		23,480,532	30,981,974	37,094,503	39,848,141	39,818,664	39,789,524
Equity							
Loan	456,804						
Add non Cash Items:							
Depreciation		46,901	46,963	40,795	35,554	36,876	31,598
Total Inflows	456,804	23,527,433	31,028,937	37,135,297	39,883,695	39,855,540	39,821,122
Investment							
Normal replacement						23,171	

SCENARIO 1: THE BASE CASE

DISCOUNTED CASHFLOW PROJECTIONS IN USD

APPENDIX 12

	NPV	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Net Cashflow		(456,804)	23,527,433	31,028,937	37,135,297	39,883,695	39,832,369	39,821,122
PRESENT VALUE AT 20%	210,772,049	(456,804)	23,527,433	31,028,937	37,135,297	39,883,695	39,832,369	39,821,122
PRESENT VALUE AT 21%	210,772,049	(456,804)	23,527,433	31,028,937	37,135,297	39,883,695	39,832,369	39,821,122
Internal Rate of Return (IRR)	67.59%							