



Investing in Uganda



Building & Construction



The Building and Construction Industry

CONTENTS

MAP OF UGANDA	2
OVERVIEW OF THE INDUSTRY	3
Developments in the Industry	4
INVESTMENT OPPORTUNITIES	9
UGANDA'S COMPETITIVE ADVANTAGE	15
REFERENCES AND OTHER SOURCES OF INFORMATION	17
Annexes	18
Players in the Industry	19
USEFUL CONTACTS	20

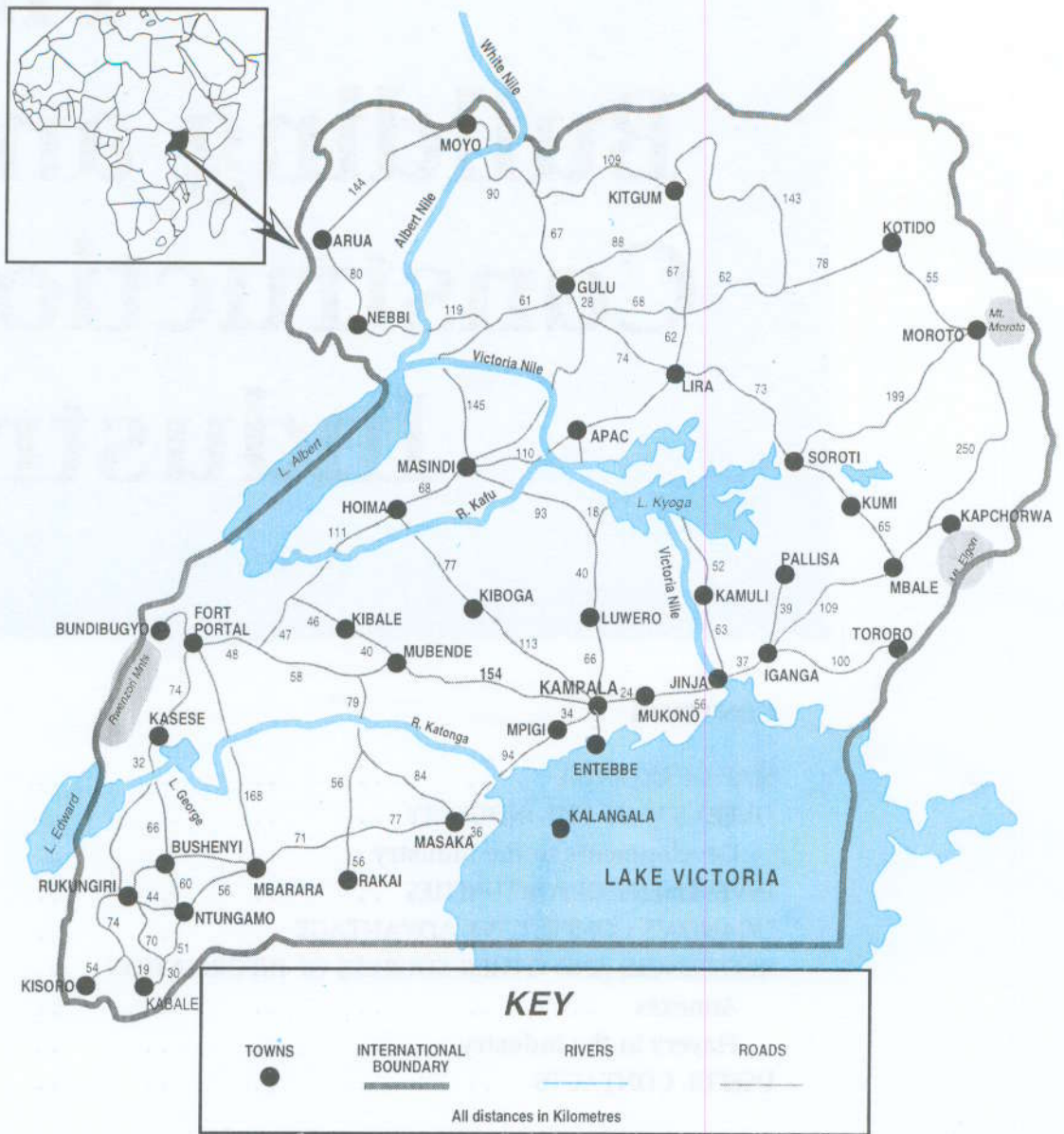
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Overview of the Building and Construction Industry

Liberalization of the economy of Uganda since 1990 has spurred development in a variety of sectors bringing with it an upswing in the building and construction industry with a growth average of 5.7 per annum for the last ten years.

The rehabilitation phase up to 1990 saw a number of public and private residential, commercial and institutional premises refurbished. Over the past decade, the size of Uganda's economy has more than doubled. It is estimated to have had an average growth of about 6.0 per cent per annum. Real GNP per capita growth has averaged about 2.2 per cent since 1985 and over 3.3 per cent since 1990.

Uganda has witnessed considerable improvement in its overall investment rates. Gross domestic investment has averaged 14.3 per cent since 1988 and 15.3 per cent since 1990; testimony to the success of policy reforms implemented.

A Ten Year Road Sector Development Programme (1996-2006) has been developed and provides for an efficient, safe and sustainable road network in support of market integration and poverty eradication and development of the domestic construction industry. Investment requirements are US\$ 1.5 billion over the 10-year programme.

The National Housing Policy and Shelter Strategy lay out the necessary framework for orderly and integrated development of the housing sector. Interestingly though the low income cadres remain uncatered for,



as most of the estates constructed with them in mind, have been taken over by the middle income earners or leased to private companies. The housing stock and especially low cost houses fall short of the housing demand, which has led to increased demand for buildings and construction materials in the Uganda economy.

DEVELOPMENTS IN THE INDUSTRY

Government policy

The elimination of poverty and improvement of living standards for the people of Uganda remains an essential cornerstone of government policy. In principle the government is committed to supporting the private sector to become powerful by creating an enabling environment that can focus:

- In profits for the investor;
- New Job creation;
- A free and fair competitive environment;
- Attracts private investment; and
- Create a strong export base.

It is envisaged that, the current reform program, once completed should increase participation of both local and foreign investors in the building and construction sector. It is hence government's aim and desire to attract private capital.

CONSTRUCTION INDUSTRY PERFORMANCE

Construction growth and demand for building materials

The construction industry has continued to grow at an average rate of 8.8 per cent per annum since 1995/96, well above the overall GDP annual growth rate for Uganda (see Table 1). This has been attributed to Uganda's rehabilitation efforts as well as new investments in structures and buildings. As the economy of the country continues to grow, there will be increased opportunities for investment in the sector.

Table 1: GDP construction growth at Factor Cost at constant 1991 percentage contribution 1995/1996–1999/2000

1995/96	1996/97	1997/98	1998/99	1999/00
13.4%	7.2%	7.6%	7.2%	8.5%

Source: Background to the Budget 1999/2000

The national requirements for building materials are based on shelter models, which estimate residential houses for the private sector over the period 1992-2006 (Table 2). It should however be noted that demand for building and construction materials would be much higher taking into account public institutions as well as private commercial and industrial buildings.



**Table 2: National requirements for Building materials (1992-2006)
p.a for entire period**

Commodity	Unit	Requirement
Bricks	('000)	9,711
Cement Bags	(50 kg)	30,655
Roofing	(m ²)	143,438
Timber	(m ³)	2,459
Others	(USh. '000)	15,267,256

Source: Government of Uganda, Department of Housing, Ministry of Lands, Housing and Urban Development. A National Shelter Strategy Vol. II, July 1992, Kampala.

Table 3: National requirements for Housing units (1992-2006)

	Kampala	Other urban areas	Rural areas	All Uganda
Total Population	730,189	1,103,000	14,700,000	16,533,000
Average population growth rate	4.9	3.6	2.5	2.5
Average household (HH) Size	4.0	4.6	5.6	5.3
Number HH	82,547	239,783	2,625,250	3,047,472
Persons per house unit	5.28	6.25	6.16	6.15
Dwelling units	38,293	176,480	2,386,364	2,688,293
Dwelling unit backlog	4,254	63,303	238,886	359,179
Projected Ppopulation 2000	1,607,000	1,981,000	21,083,000	24,671,000
Total Housing Need	263,457	254,176	1,378,457	1,797,343

Source: 1991 Population and Housing Census.

PRODUCTION OF BUILDING MATERIALS

The production of building materials is an important element of the construction sector. The production by local industries as shown in Table 4 reflects that most factories still produce below 50% of their installed capacities.

Table 4: Production of selected establishments (1995-1999)

Commodity	Unit	Capacity	Utilization				
			1995	1996	1997	1998	1999
Paints	'000 lts	4,311 p.a	2,008	1,932	2,355	2,446	2,450
Cement	mt.	600,000 p.a	88,767	175,046	289,560	321,329	347,274
Clay bricks, tiles, etc.	mt.	50,000 p.a	15,817	21,246	17,427	32,054	32,504
Cement bricks, tiles, etc.	mt.	15,000 p.a	10,293	10,251	6,086	4,783	6,991
Corrugated iron sheets	mt.	n.a	31,782	29,883	29,710	28,418	39,414
Steel doors and windows	mt.	480	150	203	143	134	124

Source: The Republic of Uganda Statistical Abstract, 2000.

Enterprises in the sector are still heavily dependent on imported machinery, spare parts and imported raw materials in the "manufacturing" process. Constraints limiting their full capacity utilization include poor management, low levels of working capital and obsolete plants and machinery.

In spite of the above, the construction industry recorded significant growth in demand for clay products, sand, gravel and aggregate, which although not quantified are still available in most parts of the country.



IMPORTS OF BUILDING AND CONSTRUCTION MATERIALS

Imports

Currently, imported construction items include cement, lime, floor and wall tiles, sanitary ware, plumbing pipes and associated fixtures, glass, ironmongery including hinges, door lock handles and pulls, steel reinforcement structures, electrical items, including water heaters, light fittings, switch control units, metal socket boxes, etc. Other small items such as nuts, bolts, screws, rivets and washers are also imported.

In the short term, a wide range of opportunities for importation of a number of building and construction materials exist. Many of these products can, in the medium-to long-term, be manufactured locally to create self-sufficiency in supply and lead to exports especially to the East African Cooperation areas, the Great Lakes region and the COMESA market. Table 5 below illustrates the position of imports into Uganda of major building and related materials.

Table 5: Imports into Uganda of major building and related materials

Imports in metric tons	1995	1996	1997	1998	1999
Prefabricated buildings, sanitary ware, plumbing, fixtures, etc.	4,051	4,054	4,171	5,231	6,091
Cement	206,317	126,676	38,726	46,148	n.a
Furniture and parts thereof	9,096	4,377	3,060	4,267	4,773

Source: The Republic of Uganda, Statistical Abstract 2000 and Bank of Uganda
n.a - not available

Markets

Projects carried out in Housing, Building and Construction Sectors currently are using a lot of imported production materials. It is clear that there is a lot of demand for these materials. It is important to note that for example one kilometre road requires 120 tons of lime for its stabilization and for the projected 300 kilometres of roads to be constructed in the next 10 years, 360,000 tons of lime will be required, yet project local capacity of lime is only about 10,000 tons per year. This situation is repeated for the other raw material requirements viz:

	Material	Annual Demand per year	Local Production	Remarks/Exports
1.	Cement	600,000 - 700,000 M.T	350,000 M.T	2,000 exported - to Rwanda 3,000 exported - to DRC Balance imported
2.	Lime	100,000 M.T	10,000 M.T	A few tons exported to Rwanda
3.	Sand		50,000 M.T	No Sand exported
4.	Aggregates	80,000 M.T	90,000 M.T	No aggregates exported
5.	Steel	150,000 M.T	60,000 M.T	Exports by Steel Rolling Mills to: Kenya \$500,000 (200) Rwanda - \$ 250,000 DRC - \$ 150,000

Source: Uganda Metal Industries Development Association (UMIDA) 2000

TRANSPORT INFRASTRUCTURE

Uganda's transport infrastructure consists of roads, railways, airports and waterways. Transport as an economic activity contributes to GDP and it is among the most viable investment projects with an average of 22% economic return. The main challenge for the transport sector



is the need to improve the infrastructure including its maintenance and safety. Provision of maintenance equipment and tools as well as construction forms an investment opportunity in this sub-sector.

The government has embarked on a comprehensive programme of road sector development. The first phase of the ten years Road Sector Development Programme (RSDP) has begun. As a result, an autonomous Road Authority to boost implementation capacity and to streamline execution was set up by government in July 2000.

WOOD AND WOOD PRODUCTS

The gazetted forest reserves of Uganda constitute 5-7 per cent of the dry land area distributed as follows: Tropical high forest: 700,000 ha. of which 540,000 ha. are under production and 160,000 ha. are protected. Savanna forests comprise 632,000 ha; plantation 24,300 ha. of which 10,900 ha. are peri-urban and 13 are softwoods. Table 6 below shows an upward trend in the level of wood production. The values provided include sawn timber, poles, fuel wood and charcoal.

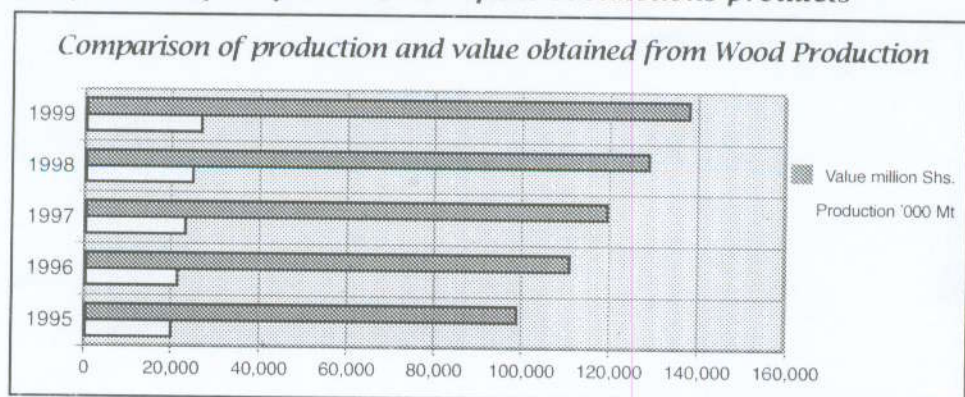
Table 6: The level of wood production

	1995	1996	1997	1998	1999
Production '000 Mt	20,389	21,112	21,900	22,740	23,873
Value million Shs	99,195	111,705	119,848	128,840	138,306

Source: Government of Uganda Statistical Abstract 2000

Trade and investment opportunities are available in production of sawn timber for domestic and export markets as well as production of high quality furniture. The potential export opportunities include: veneer, sawn wood, and furniture items of mahogany, *mvule*, elgon olive and *nkoba*. Wood based opportunities for the building and construction sector include high value furniture, laminated particle board, cement bonded particle board, ordinary furniture and treated timber. Planting of trees, taking advantage of the favourable climate in Uganda for both soft and hardwood has backward linkage to the forestry sector, also forms an opportunity for new local and foreign investors.

Graph 1: Graphic presentation of the Productions products



Source: Data from Government of Uganda Statistical Abstract 2000.

THE INCENTIVE REGIME

Uganda's fiscal incentive package provides for generous capital recovery terms, particularly for investors whose projects entail significant investment in plant and machinery and whose investments are medium or long term. The incentive package includes:



Category 1

● Initial investment allowances deductible once from the company's income on plant and machinery located in Kampala, Entebbe, Namanve, Jinja and Njeru	50%
● Initial allowances on plant and machinery located outside Kampala, Entebbe, Namanve, Jinja and Njeru	75%
● Start up costs spread over the first 4 years	25%
● Scientific research expenditure	100%
● Training expenditure	100%
● Industrial Buildings	20%

Category 2—Deductible annual allowances

Depreciable assets specified in 4 classes under declining balance method		
Class 1	Computers and data handling equipment	45%
Class 2	Automobiles, construction and earth moving equipment	35%
Class 3	Buses, goods vehicles, tractors, trailers, plant and machinery for farming, manufacturing and mining	30%
Class 4	Cars, locomotives, vessels, office furniture, fixtures, etc.	20%

Category 3—Other annual depreciation allowances

● Industrial buildings, hotels and hospitals	5%
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Assessed losses arising out of company operations including the loss from the investment allowances can be carried forward indefinitely. In addition, Uganda's corporation tax rate of 30% is one of the lowest in Africa. All plant and machinery is imported duty and tax-free. Investors who register as VAT traders are allowed VAT refunds on all construction materials used on their projects within a period not exceeding 4 years of project implementation. Further more, there are no taxes on all exports from Uganda. Exporters are also allowed duty draw back facilities on all taxes paid on raw materials used for the manufacture of exports. Uganda also has a fully liberalized foreign exchange regime with no restrictions on the movement of capital and 100% ownership of projects by foreign investors is allowed.



Investment opportunities in the Industry

EXPANDED PUBLIC AND PRIVATE SECTOR INVESTMENTS

A number of building and construction projects are public sector related, but increased opportunities emanating from the private sector are taking centre stage. The planned investment for the private sector in the construction sector as at 31st December 1997 was US\$ 669.4 million. (Uganda Bureau of Statistics, 1999). The Government of Uganda Public Investment Plan 1995/96 to 1997/98 gives the Building and Construction Sector figures shown in Table 7.

Table 7: Planned public investment (Shs in billions)

1994/95 Budget	1995/96 Budget	1996/97 Planned	1997/98 Planned
142.1778	243.3207	210.4771	160.328

Source: Background to the Budget 2000/01

The investment in the public sector together with the planned private investment in the construction and building sector, coupled with a high GDP growth rate forms the potential for continued demand of building and construction materials and therefore an investment opportunity in the sector. Similarly, the private sector participation by way of joint venture and acquisition of more efficient technology to maximize capacity utilization forms one of the investment opportunities in this field.

HOUSING INVESTMENTS

With the strengthening of the private sector, the building and construction industry is providing further scope for trade and investment opportunities as follows:

- Provision of low cost housing to cater for the majority of the population especially in the urban and peri-urban areas;



- Provision of housing and mortgage finance to enable the majority of Ugandans to own their residential houses; and putting up commercial and industrial buildings as the economy grows; and
- Manufacture of prefabricated concrete systems and sanitary wares.

INVESTMENT IN THE ROAD CONSTRUCTION SECTOR

As outlined in the government programme for a 10-year road construction programme, a lot of roads will be built. These will require large amounts of raw materials like aggregates, sand, steel, timber, cement, paint and other road furniture. Opportunities are available in the setting up of factories to manufacture lime, cement and paint and the establishment of quarries to produce aggregates and sand, and timber for the construction of bridges, fly-over, etc.

INVESTMENT IN THE BUILDING AND CONSTRUCTION MATERIALS

Building and Construction Raw Materials and their Uses

- Industrial Minerals

Industrial minerals used in the construction industry

Kaolin	Floor and wall tiles, paints
Sand	Concrete, roads
Feldspar	Floor and wall tiles
Limestone	Aggregates, lime
Pozzolans	Cement, aggregates
Aggregates	Concrete, roads
Clay	Roofing tiles, sewage pipes
Sand/Cement	Sand/Cement tiles

- Dimension stones: represent another area of potential investment in the production of dimension stones.

Definition

Quarried stone is used in a variety of ways in the building construction stone industry; shaped and sized as dimension stone, roughly broken and used for riprap or rockfill and aggregate.

Stone cut and dressed into regularly shaped pieces is known as dimension stone. Dimensions can range from several metres in three dimensions to thin slabs. In the building stone industry the term "granite" is used to denote any crystalline igneous rock such as granite, gabbro, arnothisite or syenite which can be cut and finished.

The term "marble" is used to describe any limestone, dolostone or other carbonate rich rock that takes a polish as well as true marble (limestone or dolostone recrystallised by heat and pressure).

Uses/potential markets

Dimension stone finds a variety of uses such as replacement for mass concrete foundations and concrete blocks in walls (structural dimension stone).

In the commercial and residential construction such as in the hotel industry for exterior/interior cladding, internal flooring, kitchen/reception plate-forms, columns, graves, swimming pools, for the production of terrazzo tiles, landscaping and other commercial uses, etc.,



- as architectural stone, monumental and paving blocks,
- for large stone blocks for bridge piers and building foundations,
- for the production of granite monuments, furniture and other speciality products, and
- for production of value-added items such as pillars, pedestals, flower vases, flower pots, balls, fountains, etc.

Raw materials for Dimension stones

Marbles

The limited geological distribution of the marble limits their eventual exploration to only two areas of Uganda: Karamoja and West Nile.

From the dimension stone point of view, the Karamoja marbles, especially those in Moroto, are better prospected and explored and are accessible. Therefore they are currently the only prospective marble deposits that Uganda has. The quantities have been evaluated as follows:

Forest Marble Reserves (Moroto)	-	5,762,000m ³
Tank Hill Marble (Moroto)	-	4,200,000m ³

Limestone

Limestones-calc-tufas (travertine) and lacustrine types are currently known in two areas. Travertine is known to occur in Dura near Hoima and lacustrine, thinly, finely laminated limestone occurs in the Napak Volcano area near Iri in Karamoja. The Dura travertine (limestone deposited from hot springs) is better explored and is a very prospective deposit from the point of view of small-scale tourist objects.

The Lokeru lacustrine limestone is sub-horizontal (dip-2-3°), varies from a yellow, pure, finely laminated, fluggy rock at the top to a less regularly stratified, less pure rock at the foot which locally has remarkable ovoid bodies up to 5 cm. long and which are elongated along the bedding. The perfection of the bedding laminae in the higher rock is such that 4 or 5 distinct, plane and persistent colour bands may easily be recognized in the thickness of a millimetre with the banding bent into a flat lying folds (Trendal, 1965).

The Lodoketangikothowa limestone may in part be of secondary origin because of the divergence, in some parts, of the fine colour banding from generally planar stratification to aberrant contorted forms. There are about 7 metres of fine, compact, yellow limestone with the stratification well defined by parallel lighter and darker stripes between 1 mm. and 2 mm. Total national limestone reserves is about 200 million tons about 75 million being usable.

Gabbro

Knowledge about considerable geological distribution of gabbros is restricted at the present to the Kadam Volcano area in the southern Karamoja. Gabbros outcrop in at least 9 localities, the most significant of which are the two hills of Lokwamura and Morupotioto, which rise abruptly about 70 metres from the surrounding Upe plains (Trendal 1961). Gabbro is very attractive dimension stone (black granite), which explains the expensiveness of dimension stone products.

Irrespective of rather unfavourable security, utilities, infrastructural and most probably landownership factors, hoped-for socio-economic development programmes in the area make it a highly prospective area. No qualities have so far been delimited or delineated.



Granites, granodiorites, granite-gneisses, doleritic and amphibolitic rocks

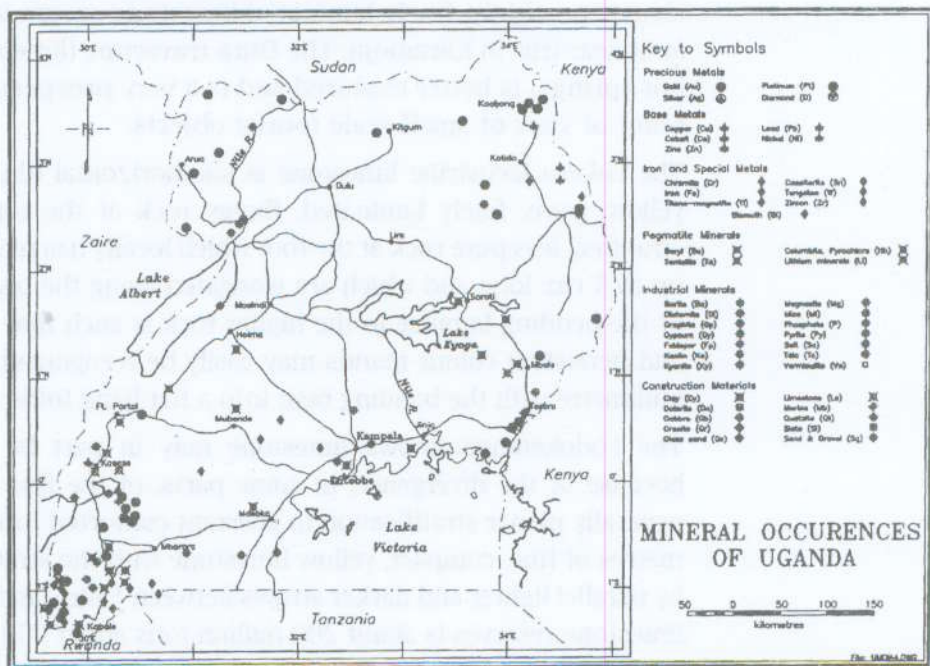
These rocks are generally widely distributed in Uganda and presently, the prospective area (s) in which deposits are, is delimited by the low volume to cost ratio factors of not only dimension stone but also aggregate i.e. they fall either within a 120 km. radius of Kampala or within 30 km of a municipality with a rail station of a rail line. The deposits are varied especially as far as appearance (colour and texture) is concerned. Little work for dimension stone has been carried out in this area and there is no doubt that more varied deposits can be identified.

Recommendations—Investment Potential

Large-scale commercial operations should target limestones and marbles, granitic or gabbroic intrusions and the rocks of the metamorphic basement complexes within the delineated prospective areas.

More detailed geological work on the interesting rock occurrences or outcrops within these areas is necessary. (See figure below—Occurrence of Minerals). This should include, the determination of the petrographic and relevant physical and chemical characteristics for each of the sampled deposits and an economic evaluation for each of the rock occurrences should be carried out.

Map 2: Occurrence of Minerals



COMPOSITE ENGINEERING MATERIALS FOR THE CONSTRUCTION INDUSTRY

Definition of composite materials—Composites are by definition those combinations of two or more materials which produce unusual properties of stiffness, strength, hardness, weight, high temperature and corrosion resistance or electrical conductivity, and which cannot be attained by the individual material. These composite materials can be processed to manufacture building components kilo wall panels, windows, floor, wall and roofing tiles, bricks and blocks, etc. The following materials are available in Uganda to produce composites:



Table 7a: Mining and beneficiation Industries that produce wastes, which are potential raw materials for composites

Industry	Wastes	Location	Quantities in tons
Iron Ore Smelting	Blast Furnace Slag	Sembule Steel Mills, Kampala Steel Rolling Mills, Jinja	50,000
Iron Ore Mining and beneficiation	Mine Wastes, tailings	Muko, Nangalwe, Sukulu Hills	2,000,000
Copper production	Mine Tailings	Kilembe Mines	20,000,000
Wolfram Mines	Mine Tailings	Kirwa Mines Nyamuliro Mines	100,000
Tin Mines	Mine Tailings	Mwirasandu	50,000
Cobalt Production	Mine Tailings	Kasese	800,000
Cement	Cements Wastes	Tororo, Hima	50,000
Lime	Wastelime	Muhokya, Tororo, Jinja, Kampala	50,000
Phosphate Industry	By-product gypsum (Phosphate gypsum) Iron Ore Tailings	Tororo Phosphates (Sukulu), Busumbu Phosphates	30,000,000
Volcanic Ash	Volcanic Ash	Kisoro, Kabale, Bushenyi, Fort-Portal, Sironko, Kapchorwa	Millions of tons
Quarries	Quarry Dust	Kampala, Jinja	150, 000 +
Brick/Tile Production	Rejects, grog dust	Kampala, Jinja	100,000
Limestone	Limestone Wastes, Marble Wastes	Moroto, Muhokya, Hima, Toro, Kisoro	50,000
Gold	Gold tailings	Busia, Karamoja, Bushenyi	700,000
Kaolin	Feldspar/Sand tailings	Mutaka, Rakai	1,200,000
Diatomite	Sand/Silica	Pakwach, Atur, Panyango	150,000
Vermiculite	Sand/Silica	Namekhera	350,000
Salt	Sand	Lake Katwe	2,000,000

Source: Uganda National Council for Science and Technology; 2000 Databases on composite materials in Uganda.

Table 7b: Industrial wastes

Industry	Wastes	Location	Quantities in tons
Steel Rolling Mills	Steel Slag Lime Sludge	Sembule Steel Mills Steel Rolling Mills EASCO-Jinja	50,000
Sugar Companies	Bagasse Molasses Lime Sludge	Scoul KSWL Kinyara Sugar	
Copper production	Mine Tailings	Kilembe Mines	20,000,000
Wolfram Mines	Mine Tailings	Kirwa Mines Nyamuliro Mines	100,000
Tin Mines	Mine Tailings	Mwirasandu	50,000
Cobalt Production	Mine Tailings	Kasese	800,000
Cement	Cements Wastes	Tororo, Hima	50,000
Lime	Wastelime Sludge (from chemicals, sugar, papers and Tanning Industries)	Muhokya, Tororo, Jinja, Kampala	50,000
Phosphate Industry	By-product gypsum (Phosphate gypsum) Iron Ore Tailings	Tororo Phosphates (Sukulu), Busumbu Phosphate Tailings	30,000,000
Volcanic Ash	Volcanic Ash	Kisoro, Kabale, Bushenyi, Fort-Portal	Millions of tons
Quarries	Quarry Dust	Kampala, Jinja	150, 000 +
Brick/Tile Production	Rejects, grog dust	Kampala, Jinja	100,000
Limestone	Limestone Wastes Marble Wastes	Moroto, Muhokya, Hima, Toro, Kisoro	50,000

Source: Uganda National Council for Science and Technology; 2000 Databases on composite materials in Uganda.



Table 7c: Summary of the Inventory of some of Uganda's Natural Fibres that are potential raw materials for use in composites for the Housing and Construction Industry

Name	Quantity and Source	Location	Other Remarks
Banana Fibres	Plentiful - from stem	Wide distribution	Grown by man and also wildy in bushes. Not seasonal
Water Hyacinth fibre	Plentiful-from leaves	In fresh water lakes and rivers, especially along the Nile Basin.	Availability is throughout the year
Sisal Fibre	Limited-from leaves + stems	Scattered	Non-seasonal, can be grown on large scale
Pineapple fibre	Plentiful - from leaves	Central, Western and Southern parts of Uganda	Non-seasonal
Rice Husks	Plentiful-from ready rice husks	Fairly well distributed in Uganda	With irrigation, can be grown all year around
Rice Straw	Ready Rice		
Sugar cane chuff	Plentiful - from stem	Fairly well distributed in Uganda	Available all year around
Papyrus reeds	Plentiful - from stem	Along fresh water lakes, rivers and in swamps	Available throughout the year
G/nuts fibres	Plentiful - from seed shells	Fairly well distributed over the country	Available all year around
Palm Fruit fibres	Limited - from leaves of palm trees Palm oil	Mainly Central & Southern region where rainfall is high	Available all year around
Coffee Husks	Coffee seeds	Widely processed from coffee trees	Available all year around

Source: Uganda National Council for Science and Technology; 2000 Databases on composite materials in Uganda.



Uganda's Competitive Advantage

AVAILABILITY OF RAW MATERIALS

The underlying geological systems, soil types and vegetation, provide a wide range of building and construction materials that can be exploited for commercial use by the private investor. The non-metallic mineral products provide essential raw materials for various industries such as agriculture, construction, foundries, etc.

Clay minerals and related materials such as silica and silicate, feldspar, limestone, dimension stones are in a state that requires further processing to meet acceptable standards. The process requires that detailed geological work be undertaken to assess the quantity and quality of these products. The Department of Geology at Makerere University and the Department of Geological Survey and Mines together with a private investor can exploit this potential.

LOGISTICS SUPPORT

- **Land:** Foreign investors can receive long-term leases on land for industrial development. Land can be obtained from private owners, local councils and other government agencies. The Uganda Investment Authority has also set aside land for investors. The infrastructure such as roads, utilities are being worked on by the UIA.
- **Availability of raw materials:** For the construction of buildings, burnt clay bricks are commonly used, although cement blocks could also be used. Other building materials such as cement, lime, corrugated iron sheets, steel bars, roofing tiles, timber and paint can be obtained from the local market.
- **Skills:** The Makerere University Faculty of Technology, has an output of approximately 60 civil engineers, 30 mechanical engineers,



50 electrical engineers, and 15 architects per year. (Faculty of Technology- Makerere University 2000). The Uganda Polytechnic Kyambogo and other technical institutions have a combined annual output of 1,000 technicians and 3,000 artisans. General building skills are therefore available for the building and construction industry; although specialized skills may be imported.

- **Professional organisations:** There are a number of local and international firms of builders and engineers registered with the Uganda Association of Building and Construction Engineers and Contractors. Similarly, local and international firms of consulting engineers are registered with the Uganda Association of Consulting Engineers. (Uganda Institution of Professional Engineers) UIPE Land Surveyors, valuers, quantity surveyors and architect firms are also established in Uganda.

The Engineers Registration Board (ERB) under the Ministry of Works, Transport and Communication is responsible for registration of all engineers if they are to practice legally in positions of technical responsibility. It is a legal requirement that any foreign engineer coming to work in Uganda must be registered with ERB.

The National Environment Management Authority (NEMA) also plays a vital role in major construction projects. It is the principal agency in Uganda for management, coordination, monitoring and supervision of all activities in the field of environment.

Major Contractors: A number of foreign firms have established associate companies locally, including some on a joint venture basis, and have been contracted for major public sector projects. The major established foreign firms include: Sterling, Roko Construction, Energo (U) Ltd., Wamiko Construction, Sogea, Mowlem, Skanska, Strabag, Robert Murray- Hoffman, Concorp, Spencon, Excel Construction, Casements, Raghwani Construction Co. Ltd and Dragados. The presence of such international contractors reflects the increased confidence in Uganda as a competitive destination for investors.

Standard specifications for construction project: Although British Standards are generally used in the execution and supervision of buildings and housing construction work, these are normally interpreted to incorporate standards of other countries, e.g. Germany and U.S.A. The Government of Uganda has formulated some Ugandan standards and new ones are being drafted. This task has been widely addressed in road and bridge construction, but much remains to be done for updating general and standard specifications for buildings, including housing works, railways and waterworks by the Uganda National Bureau of Standards (UNBS) and the Ministry of Works, Housing and Communication plus related professional bodies.



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ANNEXES

Projects in the Industry

Name	Location
Nalya Housing Estates	Kampala
Lubowa Housing Estates	Entebbe Road
Golf Course Apartments.	Kampala
Rwenzori House (Office space)	Kampala
Golf Course Hotel	Kampala
Kampala Industrial and Business Park, Namanve	Kampala
Privatized Cement Industries	Hima & Tororo
National Housing Corporation & Consolidated Properties	Kampala
Bujagali Power (AES)- Jinja	Jinja
Karuma Fall Power Plant- Karuma	Apach
Roads	
● Pakwach-Arua-132 Kms	West Nile
● Busunju-Hoima-140 Kms	Hoima to Mityana
● Kyotera-Mutukula-72 Kms	Rakai District
● Ntungamo-Rukungiri-Ishasha-170 Kms	Ntungamo-Rukungiri
● Kabale-Kisoro-80 Kms	Kabale-Kisoro
UPE Schools -about 40,000 classrooms to be built in next 5 yrs.	National
Crested Towers Renovation/Rehabilitation	Kampala
Kampala Hotel (Kampala Road)	Kampala
Nyagak Power Plant	Nebbi
Kikagati Power plant	Mbarara
Village Polytechincs	National wide

Cost of Major Building and Construction Materials in Uganda-2001 (1 US\$ = Ug Shs. 1730)

No.	Building Material	Unit of Cost	Cost Permit	Availability
1.	Cement - OPC	Ton	\$ 165-	Local
2.	Stones - hard core	Ton	\$ 5.8	Local
3.	Stones - Aggregates	Ton	\$ 8.7 - \$ 14.5	Local
4.	Sand	Ton	\$ 5	Local
5.	Paint	Litre	\$ 4	Local/Imported
6.	Timber	Cubic Metre	\$ 5.2	Local
7.	Iron Sheets	Metre	\$ 2	Local/Imported
8.	Lime	Ton	\$ 175	Local/Imported
9.	Construction Steel	Ton	\$ 380	Local/Imported
10.	Murram	Ton	\$ 2	Local/Imported
11.	Bitumen	Litre	\$ 3	Local/Imported



Indicative Costs of Investments for various Building Materials

No.	Building Material	Cost per Unit
1.	Cement - OPC - PPC - Pozz	\$175 \$150 \$80
2.	Lime	\$173.4 per ton
3.	Construction Steel	\$300 per ton
4.	Brick (Burnt Clay)	\$0.029 per brick (20cm by 10 cm)
5.	Sanitary ware	\$10.22 per unit
8.	Floor and Wall Tiles	\$13.5 per square metre
	Note:	<ul style="list-style-type: none"> • Costs for land will vary depending on location and ownership. • Kampala City Council charges less half a dollar for square metre of land developed. And near to a dollar per building. This is normally referred to as ground rent paid on a monthly basis. • Investors' costs in building will vary depending on nature of construction requirement, type of contract sign, type of contactors chosen. Contractor charge a percentage of the total of the building range from 20 to 30 percentage depending on the size of the firm used.

PLAYERS IN THE INDUSTRY

No.	Company	Product	Address
1.	Uganda Clays	Bricks/Tiles	P.O. Box 3188, K'la Factory KM 14 K'la Ebb Rd., Kajjansi
2.	Clay and Allied Products	Bricks/Tiles	7 miles Gayaza Rd., K'la Tel: 567177
3.	Steel Rolling Mills	Construction Steel	P.O. Box 2243, Jinja.
4.	Sembule Steel Mills	Construction Steel	P.O.Box 15182, Nalukolongo, Masaka Rd. Kampala Tel: 234795/233778/233578
5.	Steel Corporation of East Africa	Steel	6 Wako Close Jinja Tel 120083
6.	BM Steel Mills	Steel	5, Jetha Ismail Rd. Box 956, Mbarara Tel: 0486-20436/21053
7.	Kiwa Industries	Roofing tiles	403/404, Nakawa Industrial Area, K'la Tel: 285325/285065



Useful Contacts

Name	Address	Telephone	Fax
Ministry of Water, Lands and Environment	Amber House Kampala Rd. P.O. Box 7270, Kampala	41-234732	41-230220
Ministry of Works, Transport and Communications	Airport Road P.O. Box 10, Entebbe, Uganda.	41-320101/ 320580	41-320135
Uganda Institution of Professional Engineers	Total House, Jinja Road, P.O. Box 1308 Kampala, Uganda	41-222369/ 222367	41-232836
Uganda National Bureau of Standards	Plot M127 Nakawa Industrial Area P.O. Box 6329 Kampala, Uganda	41-222369/ 222367	041 289123
National Environment Management Authority (NEMA)	Floor 5 East African Development Bank Building 4 Nile Avenue P.O.Box 22255 Kampala.	251068/ 251064 41-236817	41-257521
The Engineers Registration Board	P.O. Box 10 Entebbe, Uganda	41-285833/4 41-320135	41-236369



Investing in Uganda

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UGANDA INVESTMENT AUTHORITY

THE INVESTMENT CENTRE KAMPALA

PLOT 28 KAMPALA ROAD, P.O. BOX 7418, KAMPALA, UGANDA. TELEPHONE: 256-41-251562 - 5, 251854/5