
Lobatse Clay Works¹

LOBATSE, BOTSWANA

Peter Williamson, the newly appointed General Manager of Lobatse Clay Works (LCW), looked out of his office window at the tangible evidence of his frustration. There, laying on the factory grounds, were over three million stockpiled bricks, and there were no reasonable prospects they would be sold anytime soon. The situation had grown so bad in recent months that the previous week he felt compelled to shut down the entire production line and layoff all 100 factory workers indefinitely. If these firings were not bad enough, he now faced the very real possibility of defaulting on the company's bank loans, due the upcoming week. With no revenues coming in from the company's principal buyer—now embroiled in a corruption scandal that had forced it to halt all purchases six months ago—the company's prospects looked very dim, quite different from the way things had seemed just nine months before when the company first began production.

Peter once thought he would be happy with a promotion to the role of General Manager. For over 25 years he had worked as a Production Manager for Interkiln Corporation of America (ICA), a parent company of the joint venture Lobatse Clay Works, which over the years had posted him to various production assignments throughout the developing world. In the past year, he had decided to leave ICA to work directly for its newly formed Botswana joint venture, Lobatse Clay Works, so that he could stay in one place and lead a

“normal” life with his wife. After 20 years of infrequent visits to his family, Peter looked forward to being a full-time husband and father. He envisioned this production job as being his last overseas assignment before taking early retirement and moving back to England. To his surprise, however, within a few months on the job he was thrust into the General Manager role and asked to manage a crisis situation, clearly the biggest challenge of his professional career. Reflecting on his experience at LCW, he smiled ironically: everything was supposed to be relatively easy to manage; it looked good for the company, good for the country, and good for himself. Recent events, however, now made it seem that the entire joint venture was in question. The bank called him every day asking when they could expect their current loan repayment.

The Interkiln Corporation of America

The Interkiln Corporation of America (ICA) was a privately held U.S.-based company headquartered in Houston, Texas. They constructed and managed ceramic manufacturing facilities around the world. The company was wholly owned by Elmer Salgo, its president of the past 45 years, and under his leadership it had found a niche for itself building “turn key” brick-making facilities for governments throughout the developing world. Beyond building and managing production facilities, the company provided technical and management support to train local personnel to takeover man-

agement responsibility. By providing economically and politically viable industry to developing countries, ICA had become one of the premier construction companies in the world. ICA had built factories in China, Nigeria, Libya, Eastern Europe, and elsewhere.

ICA revenues were primarily generated from two sources. First, it earned fees for its management work, conducting feasibility studies for proposed new production facilities and providing technical assistance and on-site supervision before, during, and after the construction itself. Secondly, it earned a profit from the sale of equipment installed in these facilities, purchased from wholesalers or on the open market. While these business activities had been quite lucrative in years past, the company's cash flows from these agreements were always short-lived. Once the factory was complete and the new management trained, the "turn key" agreement ended and the company had to search for new opportunities. During times of worldwide recession, few countries showed much interest in the company's services. Recognizing its vulnerability to such unmanageable factors, the company for many years had been seeking a "good" longer-term investment opportunity: a deal that promised a steady cash flow over a longer period of time with a reasonable return on investment. Such deals were difficult to find given the firm's specialty in building facilities for developing countries. These environments were often politically volatile and economically unstable, so positive cash flows were not readily assured. At long last, however, ICA management thought they had found what they were looking for. A potential joint venture with the Botswana Development Corporation, a state-owned company of the newly prosperous country of Botswana, seemed like the perfect business opportunity.

History of Botswana

Botswana is located in southern Africa, surrounded by Namibia, Zambia, Zimbabwe, and the Republic of South Africa (see map on p. 115). It is approximately the size of the state of Texas, but with a population of only 1.3 million people. The country is situated primarily in the Kalahari Desert, giving it an arid landscape similar to northern Arizona or New Mexico. The temperature routinely reaches 120° during the summer months (December–February), and below freezing during the

winter months. This harsh climate makes it close to impossible to obtain consistent agricultural crop yields. Historically, the people of Botswana relied on cattle and goat herding as their source of nutrition and wealth. Their semi-nomadic nature meant few urban centers were established prior to Botswanan independence from Great Britain in 1966. With no industrial base and no business centers, Botswana at the time was the fifth poorest country in the world with gross domestic product (GDP) of \$200 per person. The newly independent government made its primary focus the country's industrial development and the increased employment and wealth of its citizens. It aggressively searched for opportunities to exploit what they believed at the time to be the country's very few natural resources.

In 1969, the South African DeBeers Diamond Company discovered a vast diamond supply in the central region of Botswana. The diamond reserves were so large that it was estimated that the proposed mines could operate at full capacity through the year 2020. After negotiating mining rights for the excavation and handling of diamonds, Botswana found itself with vast economic wealth. The 1980s were marked by GDP growth of 12–15% per year and a general economic "boom" unseen in the area's history and, in fact, rarely seen in the world.

The construction sector could not keep pace with the newfound need for industrial and residential construction. Botswana's lack of natural resources and minimal industrial capabilities allowed foreign construction companies and products to enter the country and dominate the local marketplace. This became a source of concern for the government. They were wary of the country's complete dependence on South Africa. Botswana's landlocked position and lack of natural resources forced it to import 85% of all goods and services from South Africa. Even those goods and services originating from outside South Africa entered the country via South African ports and highways. The future political uncertainty in South Africa made it imperative that Botswana, and every other country in southern Africa, lessen its dependence on South Africa for its commercial needs.

Fortunately, Botswana was spared the racial tensions that had long strained social relations in South Africa and Zimbabwe. A unique feature of Botswana was the

accepting relationship between the indigenous people, with family “roots” going back hundreds of years, and the “white” expatriate community that immigrated to the country during the twentieth century. The expatriates came primarily from South Africa and the United Kingdom but also from India, the United States, and Sweden. The mixing of people from different cultures was quite successful and even permeated the highest offices of government. The first freely-elected President of Botswana was married to a Caucasian English woman. The appointed Governor of the Bank of Botswana was a Caucasian American. Expatriates dominated management positions in most private companies. The local people, the Batswana, lacked Western-style management experience, and people accepted that the country relied on foreign expertise to create an effective economic environment. Most Batswana wanted more of their own people in positions of power, but local business people lacked the education and experience to manage large operations. Though the government now aggressively sponsored the overseas education and business experience of qualified local people, significant change would take some time. After all, rapid economic growth had transformed the country from a pastoral society to a thriving economy in less than one generation.

The Botswana Development Corporation

The Government of Botswana attempted to use revenues from diamond mining to create indigenous industries. They formed the Botswana Development Corporation (BDC), a parastatal organization funded by the government, to create new business and industry within the country. The BDC had the freedom to search for projects that they believed would enhance the country’s economic base. Over the years, they had made investments in a wide range of businesses, including a cement manufacturing plant, hotels, a furniture manufacturing company, and a variety of other businesses, all geared to diversifying the local economy.

Although it was an independent entity and expected to make a profit, the BDC had much latitude on how it conducted its mission. It was allowed to make decisions based on what it perceived to be long-term growth potential and not worry much about short-term financial losses. Though it aspired to live by free market

principles, it did not always practice this ideal. The wealth generated from its diamond reserves allowed it to invest in projects that were far more risky than projects normally undertaken by developing countries. Inevitably, political and economic concerns shaped its decision-making. It developed a particular interest in challenging the foreign-owned companies that were operating within Botswana’s borders.

The BDC felt that the country needed its own clay products facility to give entrenched South African companies some much-needed competition. For decades, foreign brick suppliers had received premium prices for their products, and the BDC was determined to break that monopoly. The housing industry was booming, and BDC officials felt it was time to encourage some domestic producer to supply needed construction materials.

The Botswana Housing Corporation

The main engine of growth in the construction industry in the country was the Botswana Housing Corporation (BHC). The BHC, like the BDC, was a government parastatal created to build new residential housing for the rapidly growing population. This housing program consisted of high-cost, medium-cost and low-cost units. Low-cost housing for poor families was subsidized by high-cost housing sold at a profit to wealthier families. Because of this “mix” of residential building activity all undertaken by the BHC, very little residential construction was done by private firms. The BHC had a virtual monopoly. To compete in the Botswana marketplace, any large construction materials manufacturer had to sell its products to the BHC.

Foreign Competition

Once the government decided that a clay building products factory was needed in Botswana, the Botswana Development Corporation had to select a company that could build and manage the project to the satisfaction of both the public and private sectors. The public sector demanded that any new industry create employment for its citizens, introduce new job skills, and lessen dependence on foreign companies for essential building materials. The private sector wanted products that were competitive in quality, quantity, variety, and price

compared to those of established foreign clay products suppliers.

There were risks with this plan of action, however. For years the primary supplier of clay building products was the South African company, Corobrik. The BDC was quite concerned as to how Corobrik and other brick manufacturers might react to new competition from a state-supported company. They knew quite well that Corobrik's large size—estimated to produce 150 million bricks per year—could easily overwhelm the much smaller plant planned for Botswana—expected to peak at 25 million bricks per year. The planned capacity for the new plant would supply nearly all the government's requirements for face-bricks, eliminating the need for a second major face-brick supplier in the country, and so either the BDC factory or Corobrik would have to abandon the face-brick market in Botswana. The stock brick market, on the other hand, would still require tens of millions of bricks per year, but the lower profit margins of that business made it much less lucrative than the higher-quality, higher-margin face-brick business. Neither company wanted to lose its most profitable market segment. There was fear Corobrik might “dump” its products on the Botswana market, selling at unfairly low prices, forcing the new manufacturer out of business.

The Feasibility Study

The economic growth of the 1980s created demand for all types of construction, and foreign-owned construction companies already dominated the contract-tendering process for new construction. Their projects required extensive import of bricks and other clay products. As part of its on-going search for new business, Interkiln Corporation of America (ICA) approached the BDC about building a clay products plant in Botswana to respond to the growing demand for bricks. The BDC was delighted by their inquiry. Here was an opportunity to fulfill its goals of creating a new industry while adding employment in the country.

The BDC entered into negotiations with ICA to produce a feasibility study for a new clay products factory in Botswana. The study was extensive, including an analysis of the current market situation, projections of future demand, availability of raw materials, transportation issues, estimates of employment created, and

assessments of costs for building the plant and supporting facilities. The Executive Summary of the report appears in Exhibit 1.

The feasibility study was conducted by ICA personnel with experience in constructing clay products facilities. It found that:

1. An indigenous plant could compete against foreign suppliers on quality and price. This was due to the quality of the clay and lower transportation costs associated with being situated near the capital city;
2. Future demand would slow but remain strong throughout the decade, due to world demand for diamonds and the resulting increased local wealth and growing demand for housing;
3. There was a large, high quality clay deposit only 50 miles south of the capital city of Gaborone, in the vicinity of the town Lobatse;
4. The optimal size of the plant would produce 25 million units per year and employ nearly 200 factory workers plus administrative staff. This plant size would force it to utilize nearly 100% of its capacity to supply the Botswana Housing Corporation's needs for clay brick materials; and
5. The plant could be built for just over US\$10 million.

Further details of the feasibility study appear in Exhibits 2 through 5. Exhibit 2 describes the technology planned for the facility, highlighting its state-of-the-art features. Exhibit 3 details the capital investment requirements, showing how anticipated costs were to be shared by the joint venture partners. Exhibit 4 shows the anticipated production volumes and operating costs once production began. Finally, Exhibit 5 shows in graph form the impressive cash flows anticipated from the operation in the ensuing years.

The results of the study made the project seem very attractive to the BDC. They were thrilled to learn that the BHC, the largest purchaser of building supplies in the country, would utilize nearly 100% of the plant's production output. That meant that BDC's “sister parastatal organization” would utilize almost *all* the production capacity of a proposed indigenous clay production facility. With such promising news, the biggest questions facing BDC management now became: (a) how

Exhibit 1

JOINT VENTURE FEASIBILITY STUDY: EXECUTIVE SUMMARY

This revised study appraises the technical and economic viability of the establishment of a high quality facing brick and ceramic tile facility near the town of Lobatse, in Southeast Botswana. The study has been prepared by INTERKILN CORPORATION OF AMERICA utilizing previous detailed information provided by the BOTSWANA DEVELOPMENT CORPORATION, during recent meetings.

Over the last six years, Botswana has had an average annual consumption of building bricks and roofing tile products of 90 million brick equivalent units. Demand is expected to grow by at least 5% per year, as Botswana's rapid economic development continues and the drought, which has affected the country since 1982, appears to have come to an end. The Government has introduced special measures to alleviate the shortage of serviced plots for housing and commercial construction. This would stabilize demand, should drought return.

Most of Botswana's building brick and roofing product requirements are being covered by locally made concrete blocks and, in the case of roofing materials, by imports. The market for clay bricks is presently catered for by either imported face bricks or locally produced low-quality stock bricks. A sound market potential is available in the manufacture of split tiles, ceramic pavers and clay roofing tiles, to displace current imports. The proposed plant has a modest production level of some 25 million units, which the market potential justifies.

The clay deposit near Lobatse is admirably suitable for the production range envisaged, and proven reserves are at least 1.2 million cubic meters, which is sufficient for over 20 years at full plant capacity. The land area and clay deposit are Government property, and a royalty of 3% will be paid on the annual turnover for the use of the land and the material.

The plant design is flexible and allows for the production of a wide variety of high-quality products at low cost. The plant will allow the production of the high-quality products with all local materials, thereby having a considerable impact on the economy. The plant will utilize known and proven technology and will be a combination of modern cost effective equipment linked with labor intensive handling operations.

The project as envisioned is a commercially sound investment, even with the conservative approach regarding revenues and costs. The operation would be profitable from the first year onwards and in the fifth year of operation, the return on equity is 40.1%. The break-even point is estimated at 54.2% in year 5 of operation. The financial projections allow for the payment of corporation tax from year 2 onwards. The projected net cash flow calculations show that the total indebtedness of the venture could be returned in 3.8 years with accelerated loan repayments.

The need for competent management for the operation has been recognized and it is envisaged that INTERKILN will provide competent knowledgeable on-site staff in key positions. INTERKILN will also provide an on-going management service to monitor the technical production and financial aspects of the operation.

Exhibit 2

DESCRIPTION OF THE PROPOSED PRODUCTION SYSTEM

TUNNEL KILN FIRING

The product, after drying on the dryer/kiln cars, will then be fed directly to the INTERKILN tunnel kiln. The kiln will be a continuous operation unit, which will utilize coal as the means of firing. The kiln will be complete with a coal handling system automatically linked to a temperature control system to ensure uniform firing of the product.

The kiln will incorporate the latest construction materials and technology, to ensure that the fuel consumption levels and the thermal gain in this department will be low, providing reasonable working conditions for the operatives.

The heating, firing and cooling cycles will be automatically controlled by both temperature and internal pressure, to ensure that the critical firing ranges associated with the firing of clay based products will be accurately maintained.

to fund the project, and (b) who they should contact to request a bid to build and manage the new factory. There were not many companies in the world that could oversee the construction and management of a clay products factory, much less in a developing country like Botswana. The BDC realized its options for a business partnership were going to be limited.

The Joint Venture Decision

The BDC management decided that creating a joint venture with a private company would be the most effective and efficient way to get the new industry started. Although the goal of the BDC was to create employment for its own people, there were no Botswana with the experience or formal training to manage a state-of-the-art clay products factory. In fact, the entire upper management of the new company would

Exhibit 3
PROJECTED CAPITAL INVESTMENT FOR
PLANT, EQUIPMENT AND SERVICES

Cost Category	Investment	
	Foreign (USD)	Local (USD)
Site Preparation	----	46,000.00
Site Infrastructure	----	196,000.00
Plant Buildings	513,100.00	200,300.00
Machinery & Equipment	6,931,495.00	95,375.00
General Plant Services	217,680.00	----
Erection & Installation	----	383,600.00
Marine Freight & Insurance	578,450.00	200,000.00
Design & Engineering Services	660,000.00	----
Pre-Production Services	150,000.00	72,000.00
Technology Know-How	70,000.00	----
Construction Supervision	288,000.00	----
Commissioning Supervision	138,000.00	----
Pre-Commissioning Interest	1,160,000.00	----
Foreign Supervisor's Related Costs and Contingency	----	60,000.00
Fixed Capital Investment	10,706,725.00	1,253,275.00
Total Capital Investment		<u>11,960,000.00</u>

have to be brought in from abroad by the joint venture partner. Given the Batswana's positive attitudes towards living and working with expatriates, there was little political concern about utilizing foreign expertise. Although the BDC did not like giving that much control to a joint venture partner, it saw no alternative. Maintaining oversight of the company would depend on the vigilance of the Board of Directors, of which the BDC would have majority representation proportional to its equity investment. The BDC would actively oversee the operation, thus controlling its financial investment in the project. The actual amount of the investment would not be known until a joint venture partner was found to sign an agreement.

The large brick manufacturers located in neighboring South Africa were the easiest to contact as potential partners for the new joint venture. The BDC's main concern about contacting these companies, however, was their inherent conflict of interest: if any one became a partner, they would be helping to create a new com-

petitor for their existing factories. The economic recession plaguing South Africa had already forced local brick companies to lay-off thousands of workers and to stockpile hundreds of millions of bricks that could not be sold to the stalled South African construction sector. The logical move for the South African manufacturers was to sell their excess capacity to the strong construction sector in Botswana. But the BDC had made a conscious decision to reduce the country's reliance on foreign products. After reviewing the business and political ramifications of entering into an agreement with a South African company, the BDC decided to contact clay manufacturing experts outside the region regarding the possible joint venture agreement.

ICA BECOMES JOINT VENTURE PARTNER

The BDC contacted ICA about submitting a bid for the joint venture. The political and economic stability of Botswana seemed a perfect situation for ICA. They could profit short-term from the management fees and sale of equipment, and benefit longer-term by owning part of a clay products factory operating in a "booming" economy. The lack of prior long-term involvement by ICA in a venture did not affect the BDC's final decision. After all, the BDC and ICA had worked together well during the feasibility study, and both parties would have a financial stake in the project. ICA would supply the management expertise, specialized equipment, and nearly one-third of the total equity in the company—over \$3 million. The BDC, utilizing its substantial financial resources, would supply the other two-thirds of equity, and provide the loan guarantees necessary for the project to borrow from private financial institutions. The BDC's political clout might also be important if problems arose jeopardizing the company's attempt to become the major brick supplier in the country.

The arrangement seemed ideal for both parties. The BDC would meet its goals of creating new industry and employment while receiving technical assistance to get the project started. ICA would offer its management assistance, sell specialized equipment and benefit longer term from its equity infusion and semi-annual management fee. The long-term potential would more than make up for the initial capital expenditure, providing the company at last with an on-going income stream. Both partners thus felt confident that the joint venture would be the ideal way to achieve their individual goals.

Exhibit 4**PROJECTED PRODUCTION VOLUMES AND OPERATING COSTS****A. DESIGN CRITERIA:****I. ANNUAL PRODUCTION CAPACITY:**

- i.) 25.0 Million Clay Brick and Tile Products or 60,000 M. Tons
- ii.) Provision for 2.0 Million Glazed Split Tile Expansion

II. BASIC PRODUCTS:

- i.) Face Brick 222 × 106 × 73mm @ 2.4 Kg. ea.
- ii.) Semi-Face Brick 222 × 106 × 73mm @ 2.4 Kg. ea.
- iii.) Split Tile 222 × 106 × 10mm @ 1.2 Kg./Pair
- iv.) Split Paver 222 × 106 × 25mm @ 2.4 Kg./Pair
- v.) Roofing Tile 420 × 240 × 15mm @ 2.6 Kg. ea.
- vi.) Ridge Tile Shape 400 × 220 × 15mm @ 2.2 Kg. ea.

III. PRODUCTION PLAN:

Products	Year of Operation (Pcs. × 1000)		
	First	Third	Fifth
i.) Face Brick	4,200	5,400	6,000
ii.) Semi-Face Brick	7,000	9,000	10,000
iii.) Split Tile	1,400	1,800	2,000
iv.) Split Paver	3,500	4,500	5,000
v.) Roofing Tile	1,260	1,620	1,000
vi.) Ridge Tile	140	180	200

IV. SCHEME OF OPERATION:

- i.) Clay Preparation 8 Hrs/Day, 6 Days/Wk, 300 Days/Yr
- ii.) Forming & Pressing 8 Hrs/Day, 6 Days/Wk, 300 Days/Yr
- iii.) Drying & Firing 24 Hrs/Day, 7 Days/Wk, 365 Days/Yr
- iv.) Sorting, Packing & Storage 8 Hrs/Day, 6 Days/Wk, 300 Days/Yr
- v.) Services 8 Hrs/Day, 6 Days/Wk, 300 Days/Yr

V. RAW MATERIAL REQUIREMENT:

	Year of Operation (M Tons)		
	First	Third	Fifth
i.) Woodhall Clay Deposit	42,000	54,000	60,000

VI. FUEL, POWER AND WATER REQUIREMENTS:

- i.) Bituminous Coal 235 Kg/1000 pcs. or 5,900 M. Tons/Yr
- ii.) Diesel Fuel Oil 10 Liters/1000 pcs. or 25,000 Liters/Yr
- iii.) Electric Power 200 KWH/1000 pcs. or 5,000,000 KWH/Yr
- iv.) Water 100 Liters/1000 pcs. or 2,500,000 Liters/Yr

VII. MANPOWER REQUIREMENTS:

	Operating shifts		
	First	Second	Third
i.) Management & Office	21	0	0
ii.) Production	71	6	6
iii.) Maintenance & Laboratory	9	0	0
iv.) Total Personnel	101	6	6

VIII. FACTORY SITE AREA:

- i.) 27,000 Square Meters, Approx. Land Area

Exhibit 4 (continued)**PROJECTED PRODUCTION VOLUMES AND OPERATING COSTS****B. FINANCIAL CRITERIA:****I. PRODUCT SALES PRICE:**

i.)	Face Brick	@ USD 220/1000 pcs or Pula	440/1000 pcs
ii.)	Semi-Face Brick	@ USD 125/1000 pcs or Pula	250/1000 pcs
iii.)	Split Tile	@ USD 275/1000 pcs or Pula	560/1000 pcs
iv.)	Split Paver	@ USD 330/1000 pcs or Pula	660/1000 pcs
v.)	Roofing Tile	@ USD 440/1000 pcs or Pula	880/1000 pcs
vi.)	Ridge Tile Shape	@ USD 880/1000 pcs or Pula	1760/1000 pcs

II. GROSS SALES REVENUES (USD × 1000):

	Year of Operation		
	First	Third	Fifth
i.) All Products	4,016.6	5,164.2	5,738.0

III. TOTAL INVESTMENT:

i.)	Total Fixed Assets	— USD 11,960,000 (Incl. Interim Int.)
ii.)	Working Capital Needs	— USD 500,000 (Overdraft)

IV. SHARE CAPITALIZATION AND FINANCING:

i.)	Initial Paid-in Capital		
	—55% Botswana Development Corp.	—	USD 2,375,000.00
	—25% Interkiln Corp.	—	1,080,000.00
	—20% Other American Investors	—	865,000.00
ii.)	Local Project Loan, BDC	—	3,575,000.00
iii.)	Local Project Loan	—	2,905,000.00
iv.)	Local Interim Interest Loan	—	1,160,000.00
v.)	Local Overdraft Loan	—	500,000.00

V. OPERATING COSTS (USD × 1000):

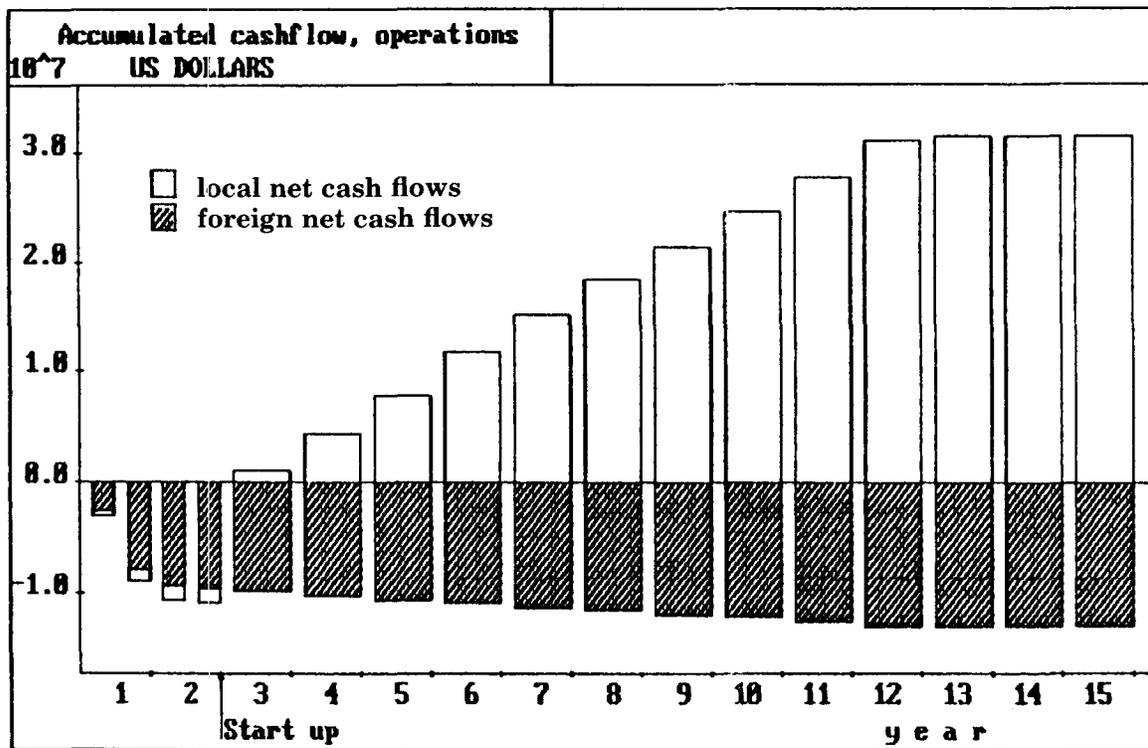
	Year of Operation			
	First	Third	Fifth	
i.)	Direct Operating Costs	783.80	989.75	989.75
ii.)	Factory Overhead Costs	175.00	175.00	175.00
iii.)	Admin. Overhead Costs	411.10	411.10	411.10
iv.)	Sales & Distribution Costs	38.37	38.37	38.37
v.)	Depreciation	1,185.88	1,185.88	1,185.88
vi.)	Finance Costs	843.15	592.69	293.47
	Total Production Costs	3,473.30	3,392.79	3,093.57

VI. PROFITABILITY (USD):

	Year of Operation			
	First	Third	Fifth	
i.)	Net Sales Revenue	3,896,102	5,009,274	5,565,860
ii.)	Operational Margin	1,301,945	2,209,167	2,765,752
iii.)	Cost Finance	843,151	592,693	293,468
iv.)	Gross Profit	458,794	1,616,474	2,472,284
v.)	Taxes	----	161,647	741,685
vi.)	Net Profit	458,794	1,454,827	1,730,599
vii.)	% Return on Sales	11.42	28.17	30.16
viii.)	% Return on Equity	10.62	33.67	40.06
ix.)	IRR on Net Worth—25.06%			

Exhibit 5

PROJECTED ACCUMULATED CASH FLOWS FROM OPERATIONS



Factory Construction Begins

Peter remembered that his first few weeks on the job as ICA's technical consultant were better than most of his previous assignments. He did not have to deal with the bureaucratic "red tape" or corruption that plagued other overseas experiences. The national and local officials whom he met seemed thrilled to have a new industry in their country. The town of Lobatse, where the company was to be located because of its ample clay deposits, had a population of 25,000. Its main industry, the national slaughterhouse, employed several thousand people. LCW would bring additional employment and revenue to the local economy. The joint venture partners had little trouble getting the land or improved utilities needed to begin the groundbreaking process.

With BDC and local government support, construction on the factory began in August 1990 and was completed less than 17 months later. The management team was able to get the factory built on-schedule despite a 20%

cost overrun. The majority of these extra costs occurred during the first stages of construction. The concrete foundation for the factory floor was totally completed before it was discovered that the ground underneath the foundation could not support the weight of the factory equipment. The substantial weight of the equipment combined with the numerous bricks expected during production actually cracked the concrete floor. The entire floor had to be broken up, removed, and replaced with reinforced concrete. Two months of work and \$2 million of unbudgeted expense were wasted correcting this oversight.

ICA's costly error with the floor did not make management at the BDC happy. Many people within the BDC felt that ICA should have realized that the floor needed reinforcement. After all, ICA's expertise was the main reason it was brought in to the joint venture project to begin with. Peter admitted to the BDC that the problems with the floor had been a major mistake, but he felt confident that ICA would make up for its oversight by producing an excellent quality product.

During the construction process, ICA argued for using coal-fired burners for the heating kiln instead of the more modern gas burners commonly used in other countries. ICA technicians reasoned that coal burners would take advantage of Botswana's plentiful supply of coal, and by utilizing an indigenous resource, they would further avoid importing natural gas from South Africa.

The overriding goal of building the factory, and the dream of locally produced goods dominating the construction materials market in Botswana, kept everyone focused on a common objective. Despite the problems with the floor, the factory was eventually ready for its Grand Opening. Lobatse Clay Works looked like a sure bet to be a good investment for both the country of Botswana and the Interkiln Corporation of America. The joint venture was ready to begin manufacturing its first clay building products to compete directly against the entrenched South African suppliers.

The Grand Opening

The mood was festive throughout the factory grounds. The employees and guests at the Grand Opening of Lobatse Clay Works enjoyed the food and drink that accompanied a big celebration. The guests of honor, especially the Minister of Commerce and Industry, were very proud of Botswana's first state-of-the-art ceramics production facility. The past two years had been filled with intense negotiation over the joint venture agreement, the cost overruns, and the completion of the factory on-schedule, but each obstacle along the way had been conquered. The process had, at times, made both parties skeptical about the factory's eventual completion. But, today, they were all smiles and handshakes as the fruits of their labors finally ripened. Full-scale production was to begin the next day. During his speech to the assembled crowd, the Minister remarked:

This new clay products facility will allow Botswana to manufacture its own clay bricks, roof tiles, floor tiles, and pavers, and not be dependent upon foreign manufactured construction materials to meet the increasing demand for new commercial and residential construction in our country. This is a great moment in the economic development of Botswana.

The Board of Directors and the management staff of Lobatse Clay Works had also been excited about the beginning of production, but each realized that they

would soon be facing a highly competitive marketplace. The previous lack of a modern clay products manufacturing facility meant that foreign competition had been able to control the supply of brick and other clay products used throughout Botswana for the past 15 years. Breaking into the building materials market was not going to be easy for the new company. Many hurdles had to be overcome before the company would begin to show the sales revenues expected by the joint venture partners.

Nonetheless, LCW's prospects seemed bright. The feasibility study showed ample opportunity, and the full knowledge and experience of the expatriate management staff now on-board would likely steer the venture well. The country was experiencing an economic "boom" from its diamond deposits, with GDP rising over 10% a year. The construction craze was forecast to last through the year 2000. If all went according to plan, LCW would be well positioned to take advantage of the demand for construction materials and make a handsome profit for both joint venture partners.

Production Begins

There were several stages to the production process. Highlights of the work are portrayed in the photographs shown in Exhibit 6.

Once the plant began operation, everyone immediately recognized the unfortunate consequences of installing coal-fired burners in the heating kiln. The low-grade coal used to heat the oven created excess ash when it was burned. The ash literally fell onto the bricks and cooked into their surface, creating ash "lines" and off-color marks on the brick faces. While the ash did not diminish the physical strength of the clay, it did leave a residue that made the bricks look "dirty." Architects and builders refused to use Lobatse Clay Works face-bricks for the external wall of buildings because the walls would not have the clean, classic look of red or brown clay. The BDC was upset that the kilns produced "inferior" face bricks. Until the problem could be corrected, material purchasers would continue to buy South African bricks. This made the BDC furious because they did not want to give construction companies any reason to continue purchasing bricks from outside Botswana. It was clear that LCW would not achieve its full sales potential until its face bricks con-

Exhibit 6

PHOTOGRAPHIC PORTRAIT OF THE PRODUCTION PROCESS



A slab of clay emerges from the extrusion machine before being sliced into bricks



General Manager Peter Williamson repairs the brick slicing machine



Newly sliced bricks are transported by conveyer belt before drying in the kiln



Bricks leave the oven with stains from the coal burning furnace



Bricks are scrubbed clean manually to remove the coal ash stains



A truckload of finished brick leaves for delivery to the customer construction site

formed to accepted building standards. The company began assigning crews of workers to scrub the bricks manually to remove as much ash as possible before shipping the bricks to customers.

Another drawback to using coal to fire the kiln was soon discovered. The products coming out of the oven were of inconsistent size. The coal did not burn in the kiln at even temperatures, so there were “hot” and “cold” areas in the kiln. This temperature variation caused the bricks to differ in size from one part of the kiln to another, producing unacceptable results. Current building standards in Botswana specified that face bricks be 222 mm \pm 3 mm in length, whereas the LCW coal fired kiln was creating variations up to \pm 10 mm. These extremes in size made the bricks impossible to sell as face bricks. This quality problem also undermined the company’s effort to sell its products to public and private construction material buyers. It also reinforced the notion held by many Batswana that products made in Botswana were simply inferior to those from other countries. Until a better heating system could be installed, LCW would lose market share to companies that supplied “clean” and properly sized bricks.

The inability to produce consistently proper face bricks also made it impossible for LCW to guarantee delivery of bricks to its customers.

As an emergency measure, the company had resorted to sending teams of employees to job sites to hand-sort previously delivered bricks to ensure that only “good” bricks were “supplied” to the customer. This quality control procedure was extremely expensive and time-consuming. The problem could have been avoided from the beginning if ICA had installed gas-fired burners in the kiln instead of the inconsistent coal-fired burners. The burner problem was the second mistake that ICA admitted to making during the construction phase of the project. The Board of Directors did not approve the conversion to gas-fired burners until November 1992.

Dependence on the Botswana Housing Corporation

When conducting the feasibility study, ICA knew full well that the joint venture’s survival was dependent on the BHC. Lobatse Clay Works had been created on

the assumption that a majority of its overall production capacity would be dedicated to fulfilling the clay product needs of the BHC. Once the venture was underway, LCW management recognized the need to maintain close cooperation with the BHC. LCW could not prosper without the BHC buying up to 70% of the company’s total production capacity. This reliance on a single entity for such a large percentage of sales had its positive and negative points. The positive side was that LCW did not have to search for market share from other sources; extensive marketing was not required to cultivate private sector sales. The negative side was the dependence on a single source for a majority of its sales; if anything happened to disrupt BHC construction projects, LCW would be very vulnerable in terms of lost demand and lost revenues. The BDC and ICA knew the risks of starting a company dependent upon a single state-owned organization. The feasibility study acknowledged LCW’s vulnerability to one main purchaser, but the BDC and ICA decided to proceed nonetheless. The political issues of moving away from dependence on South African companies, of creating a new, indigenous industry, outweighed the strictly business decision that might have been made by a purely private company. ICA took the investment risk because they felt that the BDC would be able to influence the government in its favor if competition became too keen. The BDC and ICA each focused on overall potential for profit, not on the inherent risk of relying on a single buyer for the majority of its production. The management of LCW bet its very existence on the hope that the government of Botswana would provide some sort of assistance if times got really tough.

Worst-Case Scenario: BHC Scandal

In April, 1992, just three months after LCW began operations, a worse-case scenario happened to the company. A massive scandal was uncovered within the Botswana Housing Corporation. The National Legislature called a halt to every construction project in progress throughout the country. The construction stoppage was to remain in effect throughout the government’s investigation of corruption in the upper management of the BHC. The Managing Director of the BHC, a Botswana, allegedly had taken pay-offs from construction companies and material suppliers to

award them BHC contracts. The scandal shook the people of Botswana who had prided themselves on the honesty of their government officials and representatives. Botswana had not had the endemic corruption that plagued many developing countries throughout the world. The democratically elected government has been open about its operations, and allowed total freedom to the local press to fully investigate its operations.

The government investigation found several high-ranking managers guilty of taking bribes and vowed to “clean house.” The BHC had been one of the few organizations that had a Batswana in a top leadership position, but now he was to be replaced by an expatriate. The National Legislative leaders involved with the investigation were so angered by the fact that one of their countrymen could take bribes that they declared: “There are no Motswana with the experience or education to properly manage the BHC.” Until a suitable Batswana could be found to manage the Housing Corporation, a foreigner would be hired to keep the corporation operating. Though it disrupted the housing construction industry, this zeal to maintain a high standard of integrity within the government helped Botswana continue making steps towards becoming a more independent, politically stable nation.

The BHC scandal was uncovered just as LCW was beginning to receive sizable orders from the BHC, other government organizations, and the private sector. The decision by the National Parliament to stop BHC activities was a crippling blow to everyone at Lobatse Clay Works. No one had any idea how long it would be until the investigation was finished and the BHC resumed purchasing materials. Both joint venture partners were at risk of losing all their investment if sales did not materialize soon. The BDC faced the loss of a new industry that was important to the future of the national industrial base. ICA faced the possibility of accepting a devastating financial loss in its very first joint venture investment.

While the investigation was proceeding, the management of LCW was frantically searching for alternate markets. Unfortunately, not many markets were available. Other government organizations could not use more bricks for their buildings, and private builders were too small to make much of a dent in LCW's vast inventory. Even export markets were not promising.

Botswana's robust economy, fueled by diamond exports, made its currency, the pula, strong against the other currencies in the area. Trade in the area was coordinated by the Southern Africa Development Commission (SADC) involving the countries of South Africa, Namibia, Zambia, Zimbabwe, Lesotho and Swaziland, as well as Botswana. The SADC was a regional organization that promoted free trade among member nations. The pula was approximately 30% stronger than the South African rand, for example, and twice as strong as the Zimbabwe dollar. The pula's appreciation against these currencies made it more expensive to sell Botswana products in these countries. Without domestic or international buyers, LCW found itself with an increasing stockpile of bricks on its factory grounds, no new prospects for sales, and an inability to pay its increasing debts.

Present Situation

As Peter's thoughts came back to the present situation, he could not help but feel nostalgic about the euphoric expectations of the past. The current realities were much different. First, Peter had inherited his new position just three weeks previously because the former General Manager of the company, an American, and the Financial Manager, an Indian, had been fired for attempting to negotiate a deal to sell American cornmeal to the Zambian government. They were conducting personal business on company time and with company money. When their activities were discovered by ICA and the BDC, they were immediately fired, and Peter was asked to step in and fill their shoes.

Peter was eager to demonstrate that he was the best choice for the General Manager position, and that the company could rebound from its present dilemma and produce the sales and revenues originally envisioned. The reality, however—almost no sales for the past six months, the loss of two top managers to scandal, the indefinite layoff of every factory worker, the stockpile of millions of bricks, and absence of any sign of future sales—was quite daunting. Peter would certainly be earning his “battle pay” during the current crisis.

Peter knew that ICA had been optimistic with its projected sales. The feasibility study based its conclusions on past economic strength, and Peter felt it had been “slanted” by ICA to make the project look as promising

as possible. Peter felt ICA glossed over the fact that any construction materials manufacturer was almost totally dependent on the Botswana Housing Corporation for its revenues. The joint venture partners assumed the BHC would continue to purchase construction materials at historic rates, and no unexpected situation would interrupt its purchasing schedule.

Year-to-date revenues were about 20% of what had been forecast in the feasibility study for the first year of operation. Though the company had not been expected to make a profit for the first three years, it was also not expected to face bankruptcy. Peter's immediate problem was how to meet his monthly loan payments. If he could not make the payments, the bank could foreclose on the company, closing the factory permanently. The country of Botswana would lose a new industry and jobs for its citizens, the bank would lose the millions of pula already loaned to the company and the BDC and ICA would lose their investment in the joint venture. Given the present situation, Peter felt that he had only three workable options from which to choose:

1. Get the joint venture partners to invest more equity to pay the monthly expenses;
2. Ask the bank for an additional loan to keep the company solvent until sales increased; or
3. Close the factory permanently.

Peter reached for the telephone. He had three phone calls to make to plan his next steps. He faced a tough decision—with major consequences both here and abroad—and he needed to know the wishes and flexibility of the key parties involved: the Botswana Development Corporation in Gaborone, the Interkiln Corporation of America in Texas, and his wife across town.

Notes

¹This case was written by David Osgood of The George Washington University. It is intended as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. Special gratitude goes to Dr. Richard Linowes who was extremely helpful and patient in editing and critiquing this work.