

THE STORY OF LONRHO SUGAR AND RENÉ LECLÉZIO

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Abstract

Lonrho Sugar Corporation, one of Africa's most successful sugar companies, was the creation of one man, René Leclézio. The support of Tiny Rowland, Chief Executive of Lonrho, was vital, especially during 1967-68. Lonrho's first sugar project was developed in 1965 at Nchalo, Malawi. In 1967 Rowland and Leclézio bought Anglo Ceylon in Mauritius with its three sugar mills, Britannia, Highlands and MTMD. In 1968, they engineered a reverse take-over of Swaziland Sugar Milling Company, the holding company of Ubombo Ranches. In 1969 they purchased Glendale in Natal. Dwangwa in Malawi was developed in 1976.

In 1971, Lonrho commenced development of Ferkessedougou in Côte d'Ivoire, followed in 1977 by Savé in Benin. 1972 saw Lonrho commencing Kenana, which today produces over 400,000 tons of sugar annually. René personally directed Lonrho Sugar's feasibility studies in many countries in Africa; Kilombero in Tanzania was looking very promising when LSC was taken over by Illovo Sugar.

Lonrho Sugar was a multinational operating exclusively in Africa, which always made profits; survived floods, droughts and *coups* and established a reputation for long term commitment to the communities in which it worked. By the time it was taken over by Illovo, it produced half a million tons of sugar annually and made a PBT of R289 million in the year ending March 1997. Why was such a profitable company sold? Lonrho Sugar was owned almost entirely by Lonrho, which, after the departure of Rowland and Leclézio, radically changed course and decided to sell almost all its assets except mining.

Keywords: sugarcane, Lonrho, sugar, Leclézio, Africa, Rowland

Introduction

Lonrho Sugar Corporation, one of Africa's most successful sugar companies, was the creation of one man, René Leclézio. From its beginnings in Malawi in 1965, by the time he retired in December 1994, René had made the company a major force in the sugar world. In 1997, two and a half years later, the company, producing half a million tons of sugar annually, was sold to Illovo Sugar for R1.7 billion.

Lonrho Sugar was a multinational operating exclusively in Africa, yet always made profits. It survived floods, droughts, *coups* and all the vagaries of Africa, and in its heyday established a reputation for long term commitment to the communities in which it worked. What was its secret? The reasons were many of course, but perhaps all emanating from the core philosophy of the dynamic man who founded the company and guided it through most of its short life.

The first important fundamental was in which countries to develop – the answer was primarily away from South Africa, with its own well-developed sugar industry. The selection of the country was a vital one to minimise the chances of nationalisation and the lack of water

supplies, and to be able to operate a modern hi-tech industry in areas where often nothing worked; and then to be able to remit dividends. Africa is littered with failed sugar schemes but LSC's major profit centres of Swaziland, Malawi and Mauritius remained stable and profitable for virtually the whole of the company's life, and LSC was perceived by the South African sugar majors as an experienced and efficient operator in Africa.

Most areas proposed for sugar development in Africa require irrigation and LSC became known for its irrigation expertise. More importantly, irrigation enabled steady production to take place year after year, even in the most severe drought periods such as the early 1990s, when LSC's production and profits barely dipped while the sugar industries of South Africa and Zimbabwe were on their knees.

A keen appreciation that marketing is the area where perhaps more can be made or lost than any other, ensured that sugar pricing for local markets was maintained at profitable levels, often requiring interminable meetings with the relevant authorities. At the same time it was no accident that Mauritius, Swaziland and Malawi all had good quotas to the remunerative European Union market. Indeed, it was remarkable that for a number of years relatively little LSC sugar was sold on the residual world market.

Developing sugar projects in independent Africa requires that the company knows how to get on with the Government and local people without bribery. Tiny Rowland, sometimes known as the 'Emperor of Africa', had a superb relationship with almost every Head of State in Africa. An example of his prescience was the gift/sale of 40% of Ubombo's shares to the Swazi nation, at one stroke eliminating the possibility of nationalisation (which was a real threat in many African countries at the time) and ensuring Swazi support in dealing with local and labour issues. Perhaps even more important was the appointment of competent managers who were able to run the projects reasonably autonomously, responding promptly to the diverse local issues that continuously arise in Africa, and with understanding of the local implications. However, support whenever needed was only a phone call away from Head Office.

This was a philosophy totally different from that of most other sugar majors. René's approach was to put his best people on sugar estates, where, after all, the profits are made, keeping the Head Office miniscule, consisting of about seven people: himself, the Financial Director, with an Accountant or two, two secretaries and a driver. It was widely believed that head office was actually in René's briefcase! René took an active interest in all aspects of running an estate and maintained a tight control on financial matters, but would interfere as little as possible in operations. This certainly succeeded in motivating his senior staff, who gave their all to make their project a success. René scorned excessive report writing; it was always more important to get the job done and achieve results.

Apart from the true Head Office, there were of course other staff on LSC's strength, and many of them were based on the estates where their local knowledge was of inestimable value to the Group. When a feasibility study on a new project came up, many of the team members were seconded from the different estates; this had the advantage of using their up-to-date, hands-on knowledge and experience, as well as giving them added interest and experience in another country. René would always take a personal interest in the study; development was his first love.

LSC was fortunate that there was effectively only one shareholder, Lonrho, thus policy was determined by René (with Tiny's approval). The result was, for most of the Company's life,

there were no board meetings! The downside was that after the departure of Rowland and Leclézio, Lonrho radically changed course and decided to sell almost all its assets except for mining. This was the reason for the sale of Lonrho Sugar.

A relatively wealthy organisation surrounded by a sea of poverty creates a situation with potential for conflict, and LSC's role was always to involve itself in ways to better the lot of local people. This could take many forms, perhaps the most important of which was to encourage, train and generally assist smallholders to grow cane and supply the mill; an example was the pioneering work with irrigated small scale growers at Glendale. Providing medical services and improved education was an important aspect of improving local relations, notably at Ubombo, and the excellence of these social services played no small part in generating the respect in which LSC and Ubombo were held by the Government and local communities in Swaziland.

René's life was sugar and an indication of his achievement is to be found in the increase in production of sugar and its profit before tax, from the company's inception in the mid-1960s up to its peak of 549,000 tons sugar (mtrv) and R289 million (PBT) in 1996/97. René's abilities were appreciated by Rowland, who in 1977 appointed him to the board of Lonrho Plc and as Chairman in 1991. This almost doubled René's responsibilities; he opened an office in London and attended Lonrho's monthly board meetings, in addition to his ongoing detailed personal attention to operations on the estates.

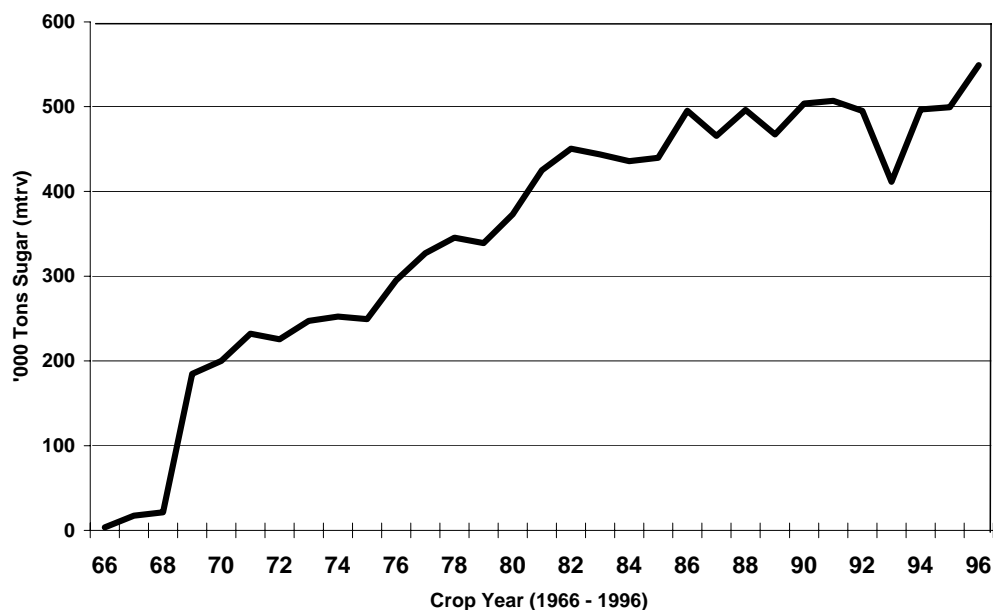


Figure 1. Lonrho Sugar Corporation sugar production for the period 1966 to 1996.

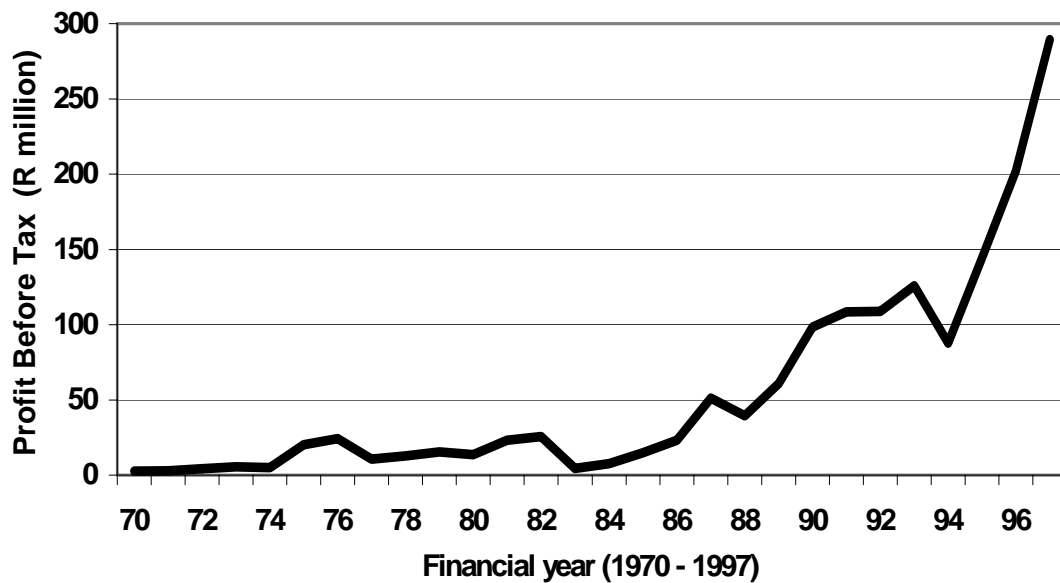


Figure 2. Lonrho Sugar Corporation financial performance for the period 1970 to 1997.

Lonrho's first sugar: SUCOMA in Malawi

How it all began

Extensive studies had been done in the 1950s by British consultants on draining the vast area of the Elephant Marsh, through which the Shire river flows, and the Nyasaland Government was seeking a developer to establish a sugar project. In 1949, Bookers established some trial plots of sugarcane on the Alumenda flats, south of Nchalo, but withdrew in 1952. The research was taken over by the Government research station at Makanga. Much later, in 1963, Dr Hastings Banda, the State President, invited Tiny Rowland, Managing Director of Lonrho, to establish a sugar project in the Shire valley. In October 1964, Graham Lester was appointed as Field Manager and started bush clearing by hand. Tiny Rowland was looking for a man to head up his sugar operation and, by chance, was seated in an aircraft next to Lord Tate of Tate & Lyle. During the course of conversation, Tiny said to Tate, *“I’d like to start a sugar scheme in Malawi. Do you know someone who could do it for me?”* Tate replied: *“Yes, René Leclézio. However, here’s a little piece of advice: if you hire him, don’t bother him or interfere with his work.”*

Early development

René Leclézio was born on Alma sugar estate in Mauritius in 1920, graduated at the Mauritius College of Agriculture and worked at several sugar mills in Mauritius, becoming Deputy Director of the Reunion Sugar Estate in 1958. At this time the Rhodesian lowveld was developing rapidly and Hippo Valley was in the market for a mill. René advised Hippo to purchase the Labourdonnais mill. He was responsible for moving it from Mauritius and, in 1962, accepted the position of Sugar Manager at Hippo. Later expansion saw Anglo American taking control of the company, with Tate & Lyle as Technical Advisers. René left and took a short-term assignment with Chris Saunders at Tongaat. It was inevitable that Tiny would offer René the job.

Following René's appointment in 1965, things began to move fast. The Sugar Corporation of Malawi Ltd (SUCOMA), wholly owned by Lonrho, was incorporated with an authorised share capital of £3 million. The contract for a 60 tons of cane per hour factory was awarded to Patrick Murray of Durban in April 1965. Although the factory incorporated a good deal of second-hand plant, it was quite modern in concept and was among the first sugar factories in southern Africa to install a diffuser (an 80 tch De Smet). It was also the first to use continuous centrifugals for both 'B' and 'C' sugars, which are now commonplace. Fifteen months later, on 15 August 1966, the first cane was crushed and Lonrho made its first sugar. By 1968 it was producing 30,000 tons of sugar annually.

The first block of cane on Nchalo was planted in 1965, and the estate began to take shape. Fields were laid out with regimental precision, leaving baobabs in place wherever possible.

The war years and later expansion

SUCOMA, since renamed Nchalo, expanded over the years, reaching 80,000 tons sugar in 1976, and exported sugar to the preferential European Union and USA markets. By 1980, however, war was raging in Moçambique, and both export railway lines to Beira and Nacala were destroyed. As well as ruining the export market, vital supplies like diesel and fertiliser were very difficult to obtain and the area under cane had to be reduced.

Matters improved towards the end of the 1980s, and in 1992 René was planning a further expansion to serve the additional requirement of sugar for domestic consumption and to maintain sugar exports, an important foreign exchange earner for Malawi. Techserve was awarded the project, which entailed stripping out the ancient cane preparation lines, diffuser and milling plant and replacing them with a new preparation line and a 300 ton per hour De Smet diffuser. There was also a new boiler; a complete re-vamp of the process house and an extension to the refinery. It was a major task to construct a 300 tch factory around the core of a factory that had originally been planned for a maximum of 80 tch. Following the expansion, sugar production reached 133,000 tons by 1995.

SUCOMA'S story would be incomplete without mention of its production of speciality sugars. René established contracts with England and France for the supply of various types of specials, and very soon the factory, which was barely equipped for such a venture, was producing lucrative special sugars such as 'Muscovado', 'Demerara' and many others.

The construction of new sugar factories in the bush, often in the remotest parts of Africa, with zero facilities, takes a contractor of a special kind. René attracted such, and perhaps the most notable who worked with him on many projects in several countries were Geoff Walsh (project management, process and mechanical engineering), Peter Muir (civil and structural engineering design), Bill Francey (civil engineering construction) and Laurie Flowerday (electrical contracting).

Swaziland Sugar Milling Company, Anglo Ceylon and the Lonrho take-over

Swaziland Sugar Milling Company

In 1949, Dr Hendrik van Eck (Director of the Industrial Development Corporation of SA) teamed up with British investors and bought two sections of a large ranch pioneered by Carl Todd, and created Ubombo Ranches. Both Todd and Vernon Crookes (who had bought into the area), as well as Ubombo, planted trial plots of sugarcane which were highly successful.

Ubombo bought the Shire mill, with a capacity of 12,000 tons sugar/annum, from Mtubatuba and the first sugar in Swaziland was produced in 1958. By this time Huletts and CDC had planned another mill in the north and the Government awarded licences to each mill to produce 40,000 tons sugar. This required a new mill at Ubombo, for which the financing was done through a new company. Thus, in 1959, the Swaziland Sugar Milling Company (SSM) came into being, with a share capital of £2.5 million.

Anglo Ceylon

The Anglo Ceylon and General Estates Company was a long established UK plantation and agency company, owning and managing tea, rubber and cocoa estates in Sri Lanka. It acquired the Britannia and Highlands sugar estates and mills in Mauritius in the 1880s and Mon Tresor et Mon Desert in the 1920s, and produced around 12% of the island's sugar. It also had large commercial interests, had cash reserves and was ripe for take-over.

Lonrho

With its first sugar development in Malawi in 1965, Lonrho was the newest of the companies making sugar in black Africa. With Tiny Rowland's political connections, financial muscle and personal magnetism, and René Leclézio's stamina, flair, Mauritian contacts and technical expertise, they were a formidable team, bent on expansion.

The merger

Tiny Rowland acquired the cash-flush Anglo Ceylon through share issues in October 1967. Early in 1968, he approached the English directors of Ubombo with the proposition that SSM purchase the Malawi and Mauritian interests of Lonrho, who would acquire 52% of the enlarged SSM, in other words, a reverse take-over. This was agreed during the year, following which Lonrho made a bid for the minority holdings, which it acquired in 1969, achieving 99.9% control in that year. The deal brilliantly transformed three small sugar companies into a structure that ultimately rivalled, in profits if not in size, the largest sugar groups on the African continent. The company prospered under the name Swaziland Sugar Milling Co. until 1977, when it was changed to Lonrho Sugar Corporation.

But this was not the end of the story. Rowland and Leclézio wanted a foothold in the giant South African sugar industry, and this they achieved in April 1969 through purchasing Glendale sugar estate and mill in Natal from the Paruk brothers. The mill was small, with recent production of 26,000 tons sugar, and the estate comprised 2000 ha.

By 1970, Lonrho owned six sugar mills in four countries and were looking forward to a long period of expansion and consolidation.

Ubombo Ranches, Swaziland

Factory

Ubombo has one of the very few sugar factories in the world with concrete building and stagings, which may have been a good solution when constructed in 1959 to produce 40,000 tons sugar/year, but proved to have severe limitations in accommodating additional loads as the factory expanded to five times that capacity. Many expansions took place, the largest one being in 1982: after a battle between three tenderers, Techserve was appointed to supply and

install a De Smet cane diffuser, which ran in parallel with the milling tandem. Major process house expansion included a continuous 'C' vacuum pan, the first in the Swaziland sugar industry, which was later followed by continuous 'B' and 'A' pans.

Ubombo had the only refinery in Swaziland until the mid-nineties. The refining capacity was expanded over the years to supply the local market, and also regional and export markets, as they became available. This expanded market also demanded a better quality of sugar, which led the Swaziland Sugar Association to approve the erection of a 25,000 ton refined sugar conditioning silo at Ubombo, one of the most modern in the world. This also turned out, at 60 m high, to be the tallest building in Swaziland! To meet the demand for refined sugar, Ubombo operated the refinery during the off-crop and refined sugar production thereafter exceeded 100,000 tons/annum out of a total production approaching 180,000 tons.

Relationship with Tibiyo taka Ngwane

An important development concerned Tibiyo taka Ngwane, (the fund of the Nation). Tibiyo owned Sivunga, a ranch to the north of Ubombo, and in 1973 invited Ubombo to develop it to sugarcane, providing the mill with additional cane, while Tibiyo took a 40% shareholding in Ubombo Ranches. From the company's point of view, Tibiyo's involvement assisted in fostering a good relationship with Government, focusing concentration on issues that might threaten the sugar industry, such as industrial relations and political changes. The benefits to Tibiyo have been an ever-increasing stream of dividend income into its coffers. Following the success of Sivunga, three more sections were developed to increase the Tibiyo cane estate to over 2000 ha. Ubombo managed the estate, sharing services jointly between the two estates.

The Big Bend canal

The main canal is without doubt the most important infrastructure in the Big Bend area. The gravity-fed, earth-lined canal runs 40 km from its intake on the Usuthu River to the estate. It was built in 1954 with an intake of 2.8 m³/sec and was enlarged in stages to over 14 m³/sec by 1986, providing water at an extremely low cost.

Fields

Ubombo was at the forefront of irrigation developments, including the low spile system of furrow irrigation that was implemented on thousands of hectares. Ubombo also pioneered centre pivots in the sugar industry in Swaziland, which resulted in excellent cane yields with lower water application rates, while at the same time requiring minimum labour. Another cost-saving development was the successful large-scale application of anhydrous ammonia, by far the cheapest way of applying nitrogen, the most expensive fertiliser nutrient on a sugar estate.

Small scale growers

Ubombo had for years promoted the idea of opening up quotas to Swazi small farmers, and appointed a team to assist them in developing their irrigated cane farms. In addition to assisting growers to obtain quota, Ubombo provided much help in training and extension, sometimes providing bridging finance, assessing and overseeing contract work done for growers (to ensure the farmers received what they paid for), providing seedcane and assisting with and organising cane transport to the mill. The effect on the wealth of the area was

dramatic; it also materially improved relationships between Ubombo and the surrounding people.

Education

It was widely perceived that the national education system was inadequate, and Ubombo developed a policy to provide good education facilities for its employees and their dependants. This included Adult Education, two primary schools, an Outreach Programme with teacher workshops and a resource centre for use by both pupils and teachers, and pre-schools to cater for more than 200 children in three centres. Next was a modern, attractive high school, Sisekelo, which achieved outstanding O Level and IEB matric results. A further important development was the establishment of the U-Tech Vocational and Technical High School, which offered the National Technical Examination syllabus (N1 to N3) to allow access into tertiary institutions in South Africa, where most specialist training took place.

Ubombo's commitment to the education of its employees and their families was hugely successful and possibly unequalled in the private sector in southern Africa. Interestingly, the cost to the company was kept at a relatively low level through payments from external learners who were attracted by the high standards offered.

Glendale in Natal

The story of René Leclézio's involvement, through a small milling enterprise in the South African sugar industry, was one of unfailing support for smaller operators. Because Lonrho was the only offshore-based company holding sugar milling assets in SA, it came in for a lot of opposition and Glendale became involved in a number of disputes with the industry, several of which successfully ended up in the High Court.

Small scale grower development

Glendale was a strong supporter of irrigation for small scale growers. It negotiated with the Corporation for Economic Development to administer loans in much the same manner as the SA Sugar Association's Financial Aid Fund operated. With the participation of the local community, Glendale rehabilitated an old flood irrigation scheme and the first cane crop produced sparkling results, which generated much enthusiasm for irrigated sugarcane in the Umvoti valley. Later Glendale installed a very successful dragline irrigation scheme that was the first smallholder project using sprinkler irrigation in the SA sugar industry. Other schemes followed.

Glendale distillery

Glendale had limited capacity to expand its sugar mill, so any diversification to add value made good commercial sense. In 1988, a Joint Venture Agreement was concluded with a locally based liquor wholesaler involving the construction of a distillery adjacent to the mill. The distillery was commissioned in 1989 and soon reached its design capacity of 7000 litres/day. Subsequent expansions were successfully commissioned and, by 1996, the distillery produced 16,000 litres/day. Next came a range of flavoured spirits for blending in the production of rums for local and export markets. The distillery was a great success commercially and, on the marketing side, it annually won the Brussels International Monde Selection for its quality spirit used in the production of vodka, cane spirit and gin.

Organic sugar production

In 1993, Glendale embarked on production of organic sugar, which requires that no inorganic chemicals be used on the land for a period of at least two years. Instead compost must be used, with ingredients only of organic origin. This task is fraught with problems because of the widespread use of hormones and other chemicals in feeding poultry and domestic animals. Glendale produced thousands of tons of compost derived mostly from bagasse, poultry litter and distillery effluent. Over the next four years, organic sugar production approached 3000 tons per annum, which was made in one or two batches during the season, so that normal operations were disrupted as little as possible. In order to isolate organic sugar, the factory required a stop to clear the vessels of normal sugar and then introduce the organic cane for processing without chemicals. The total income from a price approaching double that of raw sugar was available to the producers (i.e. the mill and its growers). There was an insatiable demand for the product, and Glendale was one of the biggest producers in the world when Illovo Sugar closed the mill in 1997.

Mauritius

No appreciable expansion of sugar production has been possible in Mauritius for many years since effectively all available land was already under cane. Some interesting aspects were:

Britannia

For many years Britannia obtained remarkable factory performances and, during the last three years of Lonrho Sugar's stewardship, achieved overall recoveries of over 90%, probably world record performances. In 1987 a back-end refinery of capacity 30,000 tons refined sugar was constructed.

Highlands

Factory performances have always been very good, generally achieving over 88% overall recovery. Other activities included potatoes and anthuriums, which produced half a million blooms annually for export.

Mon Tresor and Mon Desert (MTMD)

Great improvements in the boiler/power house complex resulted in MTMD becoming a significant power exporter to the national grid. Organic sugar was also commercially produced for some years.

Removal of rocks from cane fields has always been a significant cost item in the field budget. MTMD changed it into a profit centre through negotiation with the construction companies developing the tourist industry and sale of rocks became an appreciable contributor to MTMD's profits.

West Africa

Côte d'Ivoire

In 1969/70, Lonrho was invited by the government of Côte d'Ivoire to establish the country's first sugar estate in the Ferkessedougou region, 600 km north of Abidjan. After René Leclézio paid a number of visits to the site, the state-owned corporation SODESUCRE and

Lonrho signed contracts in 1971 for engineering, technical assistance and management. The overall objective was to plan, establish and manage a sugar project on 6000 ha of irrigated land, with a factory and refinery having a crushing capacity of 5000 tons cane per day. Ill-feeling developed between René and some of the people involved because of the substantial amounts of money which changed hands over the awarding of the contract (he called it the West African *malaise*). This resulted in René Leclézio formally severing links with the project in 1972, so all further work was carried out through Lonrho Ltd without assistance from the sugar division. The factory produced its first refined sugar in November 1974, and by 1977 management had passed to SODESUCRE, with Lonrho's involvement coming to an end.

Benin

As the Côte d'Ivoire project was developing, Lonrho also became involved in the creation of a sugar industry in Dahomey, now Benin. A feasibility study was submitted in 1973, which recommended the implementation of a sugar project in the Savé region, on an irrigated area of 4400 hectares intended to produce 60,000 tons of refined sugar per year in a factory having a crushing capacity of 3750 tons per day. The project was controlled by the government of Benin, and Lonrho Ltd was allocated a small minority shareholding together with a consultancy and management contract. After this had been negotiated, the whole project was put on hold for some years. It got under way in 1977 and produced its first sugar in 1983 but, sadly, the owners did not have the capital to fund its ongoing operations. Like so many others in Africa, the project was closed down and remains a monument to what might have been.

Kenana in Sudan

From 1971 to 1977, Lonrho was responsible for the development of the world's largest integrated sugar project ever built in one operation. Rowland was a brilliant exponent of geopolitics and could see that Sudan, the largest country in Africa, could be a bridge between Africa and the Arab world and that the prospect of a major sugar development could harness an unbeatable combination of African resources, Arab finance and Western technology. He talked to President Nimeiri in 1971, following which René Leclézio visited Sudan and was satisfied that the potential was good. Nimeiri and Rowland signed a protocol in August 1971, in terms of which Lonrho would investigate the potential for development of sugar and other crops and minerals.

There was opposition to the project from the Government-owned Sugar and Distilleries Corporation, who expressed a preference to develop a number of smaller Government controlled factories to add to the two existing (and struggling) small factories at Guneid and Khashm-el-Girba. However, Nimeiri had a vision of the Sudan becoming the 'Arab's breadbasket', producing a million tons of sugar (more than 10 times the existing production) and in June 1972 the Sugar Agreement was signed. The Government agreed to allocate land, water rights, block work permits for expatriates, and gave tax and import concessions.

Site selection

The first task was to select the site for the project. Agricultural development in the Sudan at that time used water for irrigation from the Roseires dam on the Blue Nile, all of which was already committed to existing projects, including the vast million hectare Gezira and Managil cotton projects that had been in existence since the 1920s. Therefore any new project would have to use water from the White Nile for irrigation. Unfortunately, the soils adjacent to the White Nile are saline/sodic and unsuitable for development. René proposed pumping White Nile water a considerable distance onto Blue Nile-derived soils. These soils become

impervious when wet, so canals do not require concrete lining and a large canal can be built for little more than a small canal. This was an important consideration in designing the very large project, which was to develop 32,000 ha to produce 300,000 tons sugar/annum. This target was achieved, and, to this day, Kenana, now producing over 400,000 tons sugar/annum, remains the largest sugar mill and estate in Africa and one of the largest in the world.

To locate the best site for the future project, a 24-seater Russian helicopter gunship was made available to René and soil scientist Rodney Maud in September 1972. With the helicopter it was possible to select the area of what was to become the Kenana project, some 60,000 ha, all on fertile black cotton soils, with the exception of a gravel outcrop, which supplied material for the concrete and upon which were constructed the factory and main township. It lies at latitude 13° N on the east bank of the White Nile, some 250 km south of Khartoum. The feasibility study was carried out and a seedcane pilot farm established early in 1973.

Development of the fields

The absence of large trees, uniformity of the soil and even topography all contributed to Kenana having one of the lowest costs of land preparation in the world. Irrigation is the most important aspect affecting the overall yields of cane in this arid climate, with 400 mm rain and 3000 mm evaporation annually. The giant river lift pump station had a capacity of 40 m³/sec. An efficient long furrow system was developed, with cane lines up to 2000 m long, which was only possible on montmorillonitic clay soils such as these.

Factory

Intensive discussions on factory design took place, bearing in mind the remoteness of the site and the paucity of infrastructure and services, and the fact that the factory was designed to be almost twice as big as any other in Africa. An interesting design concept was to create the factory in effect as two 8500 tons cane/day extraction units at opposite ends of the factory complex, which facilitated cane deliveries. Each unit led into the central process house that was designed to produce 2000 tons of sugar per day, half of which would be refined. Heavy flowering, causing high fibre content of the cane, ensured that there was enough bagasse to permit the generation of 40 MW of electricity, sufficient for all factory and irrigation requirements, and this made Kenana the second biggest power station in Sudan after the Roseires dam. The design and construction of the factory was an international venture involving companies from seven countries. Construction started in 1976 and the first cane was crushed in March 1980.

Logistics

During the early 1970s, Sudan was emerging from communist misrule, and almost nothing worked. Goods brought by ship to Port Sudan were known to lie on the dockside for a year. Virtually every nut, bolt, bag of cement, fuel and everything else had to be imported. Starting in January 1976, whole shiploads of equipment were chartered; one ship sank in the Red Sea, resulting in a complete loss of all equipment on board. Blocked trains of equipment were sent to the factory site on 'an aging, under-maintained, congested, low capacity, single track railway line'. There were also 'road trains' of wheeled equipment, which drove through the desert for ten days over more than 1100 km to site.

Political and financial control

The Kenana Sugar Company was incorporated in March 1975 by shareholders that included the Government of Sudan (51%) and Lonrho (12%). The feasibility study had been carried out before the first oil price crisis in 1973, and the subsequent double-digit inflation caused massive increases in input costs; there were inordinate delays in decision making by Government and other financiers, and of course there were the myriad unknowns of developing in remote parts of Africa where very little infrastructure existed. Additional funding was required and in 1977 the Kuwaitis made it a condition that a Joint Managing Director selected by them would be appointed alongside René Leclézio. This would have been unworkable and Lonrho resigned from the management of the project, retaining its stake in the equity, while contact was retained for many years with Kenana requesting return visits from René.

Dwangwa on Lake Malawi

Dwangwa started as the British Irrigated Rice Project in 1970, and by the 1990s had become one of the most successful sugar projects in Africa, with cane yields, sucrose content and factory recoveries close to the world's best levels. It was also a classic example of Africa in the wild being tamed by 'blood, sweat and tears'. Paddy Fleming was appointed leader of a team to develop this wild corner of Africa in 1970, and some excerpts from his diary tell the story:

October 1970. Mosquitoes in camp are murderous, have to bath (in the river) and eat my supper before sunset in order to get under a net before the onslaught. Also fruit bats set up an infernal din all night. We will soon have to stop all field work and concentrate on getting our people (not to mention ourselves) under some sort of cover before the rains come. The surveyors have tin houses but they have gathered around them an army of camp followers who sleep out under the trees and who will all flee at the first hint of rain.

28 November 1970. Heavy rain during the night and most of the morning. No labour turned up for work... Hyenas round the camp last night and rain pours in through the reed walls of the camp – still, it's better than the mango tree.

The lake and the climate

Although in the tropics (latitude 12° 30'S), Dwangwa has a mild climate and the thermometer has seldom ventured out of the range 8-35°C. This is due to the combination of a relatively high altitude for a sugar estate (490 m), the moderating effect of the adjacent Lake Malawi and the high cloud levels during the summer rainy months, December to April. The rainfall of 1400 mm and evaporation of 2050 mm ensures that irrigation is seldom required during the wet summer months, but full irrigation is needed during the harvest period of May to November.

Dwangwa is perhaps one of the few project sites in Africa where water is plentiful, and this impacted in various ways. Flood protection was needed from the Dwangwa River, which comes down in spate during the rains and dries up to minimal levels during the dry season. The first weir, properly constructed using gabion baskets, was washed away during the first rainy season and had to be replaced by a temporary earth wall for irrigation during the next dry season. A detailed study by consulting engineers recommended that this practice should continue, viz. construct an earth wall every dry season, which washes away each wet season. River water was conveyed in a central canal that traversed the delta in a series of level

sections to the main pump station at the lake, allowing lake water to be pumped in the reverse direction up the estate during times of insufficient river flow from September to November. The level of the lake fluctuates annually due to seasonal rainfall and evaporation, while long-term fluctuations in the level of the lake also occur. Initial planning had to be rapidly revised as the level rose inexorably in 1979/80 to the highest level since records commenced, and many hectares originally planned for planting had to be abandoned. In later years, as the lake retreated, this area came into production.

The factory

LSC carried out a feasibility study in 1973/74. Then ensued a lengthy period of financial and legal negotiations, followed by the signing of the project loan agreements in Luxembourg in April 1977. Bateman was appointed as the main factory contractor with Techserve as their process engineering consultant, and Roberts Construction were responsible for the civil works. Construction took place in 1978. A De Smet diffuser was installed and the factory started operating in 1979. Since cane planting was restricted to land in the Dwangwa delta, for many years production remained at 80,000-90,000 tons sugar, of which 60,000 tons was refined. Extraction regularly exceeded 98%. An ethanol distillery was attached to the factory. No mains power was available at Dwangwa but, fortunately, heavy flowering of most cane varieties ensured high fibre levels that provided adequate bagasse, even with a high level of refined sugar production.

Field development

In the absence of a power supply, furrow irrigation was used because it was economical. Due to flat grades, comprehensive land forming was needed. This type of work was virtually unknown in southern Africa, and an area of 6500 ha had to be developed in two years. Contractors from Zambia undertook the project and purchased the equipment for their own use at completion. A specialised US computer program was used to determine the optimum cut and fill quantities required, and survey data were sent by telex to the USA to be processed. The cut-to-fill sheets were couriered back to Malawi, after which levelling proceeded using large 4-WD tractors and scrapers, followed by the normal ripping, discing, harrowing and ridging. There were some problems in places resulting from 'scalping' the topsoil, revealing nutrient deficiencies, notably sulphur, in the subsoil. However, the high standard of land levelling achieved was in no small measure responsible for the outstanding cane yields subsequently obtained, which were regularly higher than 110 tons cane/ha, at close to 15% sucrose in cane. An outstanding 700 ha smallholder development was established, and cane yields and sucrose were on a par with those of the estate.

Kilombero in Tanzania

Following the Arusha Declaration in 1968, as part of a country-wide campaign, all Lonrho's assets in Tanzania were nationalised without compensation. By 1973, it became clear that the economy was running downhill without any foreign investment, and President Julius Nyerere offered Tiny Rowland compensation to be paid in Tanzanian currency. Accordingly, a survey of the sugar industry was undertaken, involving visits to the existing mills and estates, together with some potential new areas. The conclusion was that there was plenty of land with suitable soils, water and climate, but political and financial conditions would make it impossible for commercial development at that time.

Nevertheless, over the years René Leclézio retained a close interest in Tanzania and when Government policy on privatisation became a reality, serious investigation commenced in June 1995. Good prospects for investment were found and, after looking at three existing mills, LSC opted for Kilombero Sugar Co. in preference to TPC and Mtibwa, and embarked on a full-scale feasibility study in 1996. Kilombero had developed into a serious proposition when LSC was taken over by Illovo Sugar in 1997. After a review period, Illovo decided to go ahead and eventually purchased the company in conjunction with the sugar brokers ED&F Man. The project has been highly successful, with sugar production increasing from below 30,000 tons when the company was taken over, to more than 120,000 tons five years later. Kilombero was Lonrho Sugar's last project.

Ventures into Africa and elsewhere

René Leclézio initiated numerous forays into various places in Africa and a few elsewhere in the world, in search of potential sugar projects. Some of the ventures are described below.

Angola

In 1968, René and Guy Hulett visited Bom Jesus near Luanda, but decided not to pursue the project in the light of the incipient civil war. In 1991, with an apparent cessation in hostilities, René led a Lonrho Sugar team to Dombe Grande near Benguela, and three tons of disease-free seedcane was flown by DC3 from Ubombo to establish a nursery of modern varieties. However, the project was shelved due to yet another deterioration in political conditions.

Kenya

As Lonrho had extensive interests in Kenya, a survey of existing sugar production and potential new projects was carried out in 1975. One of these sites was at Bura on the Tana River in the desert north-east of the country. Another was the Miwani sugar mill near Kisumu owned by the Hindocha family, which collapsed in 1988, leaving large debts and several thousand outgrowers without a mill to crush their cane. Following a request from President arap Moi to Tiny Rowland to rehabilitate the mill, refinery, distillery and estate, an experienced Lonrho Sugar team visited Miwani. The team concluded that it would be feasible to rehabilitate and enlarge the project to a 100,000 ton capacity sugar mill. The feasibility study was carried out on the understanding that either Lonrho be given the project, or that it be paid for the costs of the study, but this was not honoured. This and other similar experiences resulted in lack of interest by LSC in further projects in Kenya.

Zimbabwe

In 1973, the Sabi Limpopo Authority invited tenders for the sale of the Mkwasine estate. Jointly with the Industrial Development Corporation, Lonrho Sugar put together a proposal to purchase the estate, then growing cotton and wheat, and convert it to sugarcane, together with a smallholder scheme, and erect a 200 tons cane/hour factory capable of producing up to 100,000 tons sugar per annum. The two large existing miller-cum-planters, Triangle and Hippo Valley, put forward a counter-proposal to develop the land to sugarcane and send it to the two existing mills on a main line rail to be constructed, and Lonrho's proposal failed.

Namibia

President Sam Nujoma requested that Tiny Rowland and René Leclézio develop a sugar scheme in Namibia. Rodney Maud carried out a study which showed that the only place in Namibia where adequate water for an irrigated sugar project could be found was in the Caprivi Strip adjoining the Zambezi River. René led a Lonrho Sugar team on a visit to the region centred on Katima Mulilo, and an adequate area of suitable soils was found in the dried-up bed of the former Lake Liambezi, in which the Chobe River has its source.

Comprehensive studies by Lonrho Sugar confirmed its suitability for an irrigated sugar project and it developed a sugarcane propagation farm on the banks of the Zambezi River, using disease-free seedcane from Swaziland. Economic studies, however, showed that the cost of infrastructural development in this remote area and the limited sugar market in Namibia rendered the project unviable at that time and the project was shelved.

Makhathini

In 1976, Lonrho undertook a major feasibility study on the Makhathini Flats below the large Jozini Dam, built a few years previously by the South African Government. Some 40,000 ha of good land was available in a number of scattered blocks, the climate is very suitable for sugarcane and sufficient water was available to sustain two large sugar mills with a total potential of over 400,000 tons sugar/annum. Furthermore, most of the area was lightly settled and there would have been little problem in getting access to the land. As the dam and some major canals were already built, this project could have become the lowest cost producer of sugar in South Africa, but it did not have the requisite political backing. Also, due to the depressed sugar price at the time, the project was considered not to be viable and was shelved.

Not many years later, with strong political support, major development proceeded under similar conditions in the Eastern Transvaal, with the construction of the Komati mill and expansion of Malelane. This required huge investment for the construction of two large new dams, while the Jozini dam remained a 'white elephant'.

In 1991/92, Lonrho and Tongaat-Hulett jointly updated the original Makhathini study to see whether it might by then have become viable. There had been a major change inasmuch as tens of thousands of people had moved in and settled on the project land and most, if not all, the cane would be grown by smallholders. Neither company was keen on a green-fields project with its inherent high capital cost, and the project was not pursued. This was unfortunate as the growing population pressure was bringing cropping and cattle farming into the heart of the fragile wetland ecosystem, sometimes referred to as 'South Africa's answer to the Okavango'. Development of a major irrigation project would have created irrigable land and employment opportunities, and would have drawn people away from the wetland.

Melmoth

In 1974, cane growers in the Melmoth area, who were sending their cane with a heavy transport subsidy about 100 km to Amatikulu and Felixton mills, and were concerned over possible loss of their subsidies, requested Lonrho Sugar to investigate whether a mill in their area would be viable. A detailed study of the farms in the area showed that the potential was only about 400,000 tons of cane. However, by including the potential in the Nkwaleni Valley and in neighbouring Zulu areas, sufficient cane should be available for a factory of 80,000

tons sugar capacity, but then only if the transport subsidy were to be diverted to the miller for a negotiated period. The optimum site for the factory was at Bedhlane, at that time a Tongaat-Hulett mill site. Lonrho Sugar completed the feasibility study and put forward a proposal to the SA Sugar Association, which was turned down. To justify the rejection of the Lonrho proposal, Tongaat-Hulett undertook to maintain a transport subsidy to the Melmoth growers from after-tax revenues in order not to contravene the new regulations that precluded subsidies as a cost item.

Mkhambathi in Transkei

In 1986, the Transkei Agricultural Corporation approached Lonrho Sugar to investigate the prospect of erecting a new mill near Flagstaff. René Leclézio put together a team to undertake this project, which anticipated a factory producing 60,000 tons sugar per annum derived from about 12,000 hectares of land dependent on rainfall of some 1000 mm per annum. It also proposed the inclusion of the existing north Pondoland cane, then crushed at Umzimkulu, since transport distances would be substantially reduced. Road access was its biggest limitation, owing to the presence of two very deep river gorges that had to be crossed at huge cost. In July 1987, a report was completed but received a negative response on account of high infrastructure costs and uncertainties regarding the market and variable production from many small growers.

Moçambique

Through its subsidiary Lomaco, Lonrho was the main investor in Moçambique during the war years of 1973-1992, and large cotton, tomato and citrus estates, with their gins, factories and pack-houses, were developed or reclaimed. The collapse of the Moçambique sugar industry (with six mills producing over 300,000 tons sugar annually prior to 1973), presented an opportunity for Lonrho during the 1980s and 1990s, and several detailed investigations were carried out on the rehabilitation of Mafambisse, near Beira, and later Maragra, near Maputo. Unfortunately, the stagnation and uncertainty of direction in the industry militated against success and the proposals were eventually abandoned.

Jaiba in Brazil

In 1980, the largest sugar group in Brazil, Pedro Ometto, decided to investigate the possibility of expanding into irrigated areas, all their cane then being grown under rainfed conditions in Sao Paulo state. Lonrho Sugar was appointed as consultant to assist the group move into irrigated sugarcane production because of its irrigation experience. In 1981, René Leclézio led a team to investigate the feasibility of the proposed 30,000 ha development at Jaiba on the Sao Francisco River in NE Brazil, where the Ometto Group had large land holdings. The report was very promising, but unfortunately the Brazilian economy took a nosedive at that time and payments for consultancies in foreign currencies were stopped. This resulted in the project being put on hold and ended LSC's venture in Brazil.

Other investigations

Lonrho Sugar was always keen to investigate new prospects, and visited Ghana several times, Senegal, Haft-Tappeh (Iran), Venezuela and the Ord (Western Australia), but nothing came of these visits.

The man, René Leclézio

Some remarks from his colleagues describe the man:

Geoff Walsh of Techserve:

“To bring in a project at minimum cost requires the right design philosophy and this is where René displayed extraordinary skills. Nothing went into his projects that was not absolutely necessary... Each progressive step was considered before taking the current step and this paid dividends in reducing the cost of the factory and fields expansions when he came to take the next step. His knowledge of sugarcane agriculture, irrigation practices, sugar factory machinery and sugar technology was head and shoulders above average and enabled him to plan, monitor and control developments in the way that people do today with the aid of powerful computer programs.”

Hugh Perry, Lonrho’s legal advisor:

“Over the twenty-five years of my association with René, I cannot recall anyone who really disliked him - and I know of many with whom he argued and fought in business who became and remained his close friends. The one universal reaction to him was profound affection and respect - and this was due not just to his skill and expertise, but to his fundamental integrity and generosity of spirit. But most of all he provided those who worked with him with endless fun and laughter. The Lonrho sugar empire abounded with true stories of René which are told with tears of laughter whenever the clan meets. And clan it was, created and maintained by René and the power of his personality.”



Figure 3. René Leclézio.

Paddy Strover, Agricultural Manager at Dwangwa:

“René was a special person and tremendously compassionate. He was always interested in everyone’s families, remembered the names of all the staff wives and children on the estate, where they were at school, their illnesses, achievements and their hobbies. This was a gift that very few men have. René would not hesitate to give anyone his time, no matter when or how busy he was.”

Sir Edward du Cann, René's predecessor as Chairman of Lonrho PLC:

"He could glower behind those bushy eyebrows of his, but there was always a twinkle behind that glower. He led from the front; he never spared himself. But I will tell you what we remember most about the man. He was a stalwart; he was upright; he knew what was proper and never tolerated an improper act; he was a man of honour; he had judgment. He was universally respected. He epitomised Chaucer's, '*he was a very parfait gentle knight*'. He was besides good company and a human man."

René was a man to be remembered. His knowledge, skills and insight were legendary, as were his energy and disregard for time. On a personal level, he was loyal and caring and would go to extraordinary lengths to help his family, friends and staff. With all this, he was a man of total integrity. Lonrho Sugar Corporation stood as a tribute to René Leclézio.

Acknowledgement and Reference

Much of this paper has been abstracted (with permission) from Gosnell JM (Ed) (2004). *Gallic Thunderbolt*. Pinetown Printers, 307 pp.