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BOOKER AGRICULTURAL INTERNATIONAL  
A Joint Venture With The Commonwealth  
Development Corporation  
Producing Sugar in Kenya

Volume IV

A Study by Business International Corporation  
for the  
Bureau for Private Enterprise  
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## Country Background

Agriculture is the backbone of the economy and lies at the heart of social and political life in Kenya. Currently, even in the face of a recent decline in relative importance, the agricultural sector provides nearly 40 percent of the Gross Domestic Product (GDP), 34 percent of the inputs into manufacturing, 65 percent of non-petroleum exports, and 65 percent of total employment. In a country having few natural resources aside from land, people and wildlife, and almost no mineral deposits other than soda ash, gemstones, limestone and fluor-spar, the vital importance of vigorous growth in agriculture and agribusiness to the future prosperity and stability of the nation is clear and pressing.

The agricultural sector is dominated by four characteristics of particular importance to investors.

1. Ninety-nine percent of the farms and ranches are privately owned, even though tribal culture is strongly manifest in rural Kenya.

About half this land belongs to about 3,000 so-called "large farms," ranging upward from 20 to well over 40,000 hectares (1 hectare = 2.5 acres). These farms yield 45 percent of marketed production. The other half is the property of approximately 800,000 smallholders, 70 to 75 percent of whom farm less than 3 hectares. These farms have become increasingly important to the agricultural economy since independence and now account for 55 percent of marketed production and 80 percent of all production.

An intriguing development has been the transfer of ownership of some purchased large expatriate farms to groups of smallholders organized into either companies or cooperatives. In either case, part of the land is divided into individually owned small farms and part is farmed as an estate, with paid management.

Increasing productivity on smallholder land is of the highest priority in Kenyan planning. Land tenure realities and the pressing need for more food production exercise a pervasive influence on public policy, popular attitudes, and the design of public and private investments in agro-industry.

2. Kenya exhibits one of the highest rates of population increase in the world. Officially designated at 3.8 percent a year, the figures of 4.0 to 4.2 percent are more widely held. This is bringing a steady increase in pressure on the land as indicated by a World Bank estimate of decline in the amount of good farmland per capita from a 1970 figure of 0.88 hectare to 0.36 hectare by the year 2000. Too, the decline in good farmland per capita has forced agriculture and animal husbandry into marginal areas, with serious negative impact on soil erosion and water conservation in the same vicious cycle which plagues nations throughout the world. While not the sole factor at work, population pressure on the land surely contributes to a slowdown in farm production growth from an annual rate of 6 percent in the seventies to a current rate of 2.4 percent.

3. Improved agricultural practice on smallholder farms is inhibited by the very high cost of all chemical and machinery inputs, weakly structured credit systems, traditional practices, and inadequate pricing and marketing policies.

Further, despite high levels of unemployment and underemployment in rural areas, there are acute shortages of labor throughout the country at critical times in a crop rotation. Among the myriad reasons for labor shortages are: more children spending more time in school; very low wage for hard work; traditional patterns of the distribution of labor; and migration to urban centers.

4. Finally, and very importantly, GOK is a powerful and pervasive force affecting practically every aspect of commercial agriculture and agribusiness.

It fixes prices and the cost of labor. Public corporations may compete with private enterprise. Marketing Boards control much of the domestic and export

market. GOK dictates the movement of foreign exchange, the Africanization of management, the requirements of training, to name but a few of the interventions of the public sector.

Yet, despite first appearances, GOK exhibits considerable flexibility and pragmatism. Granted that negotiation is never easy and is always slow, it is, nevertheless, always possible. The structure of but a few existing agro-industries best illustrates the point.

Some ventures are parastatal and managed by public corporations, e.g., the Kenya Tea Development Authority; other parastatals are managed by foreign partners, e.g., the Mumias Sugar Company. CPC International has been granted the first commercial exception to the rule that all grain must be purchased from GOK and can now negotiate for maize at the farm gate. East Africa Tannin Extract Company (LONRHO-UK) wholly owns and operates a 46,000 acre diversified farm-ranch, which helps support a central manufacturing complex. East Africa Industries (Unilever) is developing a source of vegetable oilseed using land leased from absentee owners and managed under contract to private, profit-making companies. Kenya Cannery, Ltd. (Del Monte) leases long term its entire 22,000 acre estate (10,000 in pineapple) from GOK, but owns and operates a cannery and controls all export marketing.

Two of these enterprises have been isolated for more detailed analysis, namely, the Mumias Sugar Company and Kenya Cannery, Ltd. This report highlights the former.

## II

### The Mumias Sugar Company

#### Enterprise Background

From independence, GOK has given high priority to the attainment of self-sufficiency in sugar. Sugar is basic in the Kenyan diet; it has been established that as much as 10 percent of food budget per family is allocated to sugar. Kenya needed to save foreign exchange. It was reckoned that cane cultivation and sugar manufacture could employ large numbers of people and could introduce a cash crop into areas of high population density where subsistence agriculture was the tradition.

A weak start in the early years of independence convinced GOK that expert technical and managerial assistance and external sources of capital were needed. In 1966, an approach was made to Booker-McConnell, Ltd., of the United Kingdom (BM), now Booker Agriculture International, a Division of IBEC(US), to take on a new development in the Nzoia Valley of the Western Province, centered around the township of Mumias. BM, with singularly relevant experience in the development of a sugar industry in Guyana, agreed, but with a proviso that GOK accept a three-year, pre-operational, field testing program to provide a reliable base of information upon which to build future commercial practices on both the nucleus estate and the lands of the outgrowers and, by means of which, financial projections could be made firm for the investors, public and private. This program was financed by the Government, with BM advancing 10 percent of the cost, to be reimbursed when the project went commercial.

This three-year period of study, fact-finding and demonstration was, in the eyes of BM management, vital to later success. Not only were farm practices verified, but the time was long enough and the contact with farmers and public officials intimate enough to bring about mutual understanding, confidence and

trust, conditions absolutely basic to the rapid and effective evolution of outgrower production, as well as to the harmony between the Government and BM.

Based upon the results of the BM pre-feasibility work, the Mumias Sugar Company (MSC) was formed in June, 1971. Cane was to be grown on a nucleus estate of 8500 acres, part of 10,000 acres leased from GOK, and by numbers of freehold, small-scale farmers, the "outgrowers," under contract to MSC. The shareholders, as of 1983, are:

	<u>Percent</u>
Government of Kenya	70.76*
Commonwealth Development Corporation (UK)	17.18
Kenya Commercial Finance Corporation	5.00
Booker Agriculture International (IBEC-US)	4.42
East African Development Bank	2.64

\*Note: GOK purchased its shares by means of an original loan from the United Kingdom Government.

The management of Mumias Sugar Company was, and remains, contracted to Booker. Under the original managing agency and factory supply agreements Booker was to:

1. provide a factory of 45,000 MT annual capacity, with start-up by mid-1973, expanding by 1979 to 70,000 MT;\*
2. develop the nucleus estate to provide a stable supply of cane, leveling off relative to outgrower production at roughly 20 to 25 percent of mill requirements;
3. organize outgrower production and provide training at all stages from field cultivation to general management;
4. manage the Company until Kenyans could take over (estimated to take ten years);
5. take a minor equity position in the Mumias enterprise;
6. take responsibility for the management of an existing but faltering sugar scheme (Chemelil) in an adjacent province (Nyanza).

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\* The conspicuous success of initial production led to the achievement of 70,000 MT sugar output by 1976. Progressive expansion plans brought mill capacity up to about 90,000 MT in 1978 and 180,000 MT by 1980. Throughout the 1970s, the next stage of expansion was being planned before the current stage had been completed.

Booker brought a level of professionalism to its task. Very likely, this integrity of purpose would have been sufficient to ensure success. However, at GOK insistence, Booker took a small equity position. The original terms of the Booker management contract are instructive. While adjusted from time to time, the contract had four components:

1. a relatively small fixed fee, to cover the general manager's salary and certain specified BM overheads, linked to the U.K. retail price index;
2. other BM staff to be seconded at cost;
3. a percentage commission on net MSC revenues (value of sales less excise tax) on a sliding scale tied to annual output, zero if under 45,720 MT, rising to 5 percent if over 66,040 MT; and,
4. 2.5 percent of the net profit of MSC.

Since 1978, payments to Booker have been adjusted to take into account the much larger turnout of sugar than had been expected.

It is to be remembered that MSC was created as an import substitution industry. One hundred percent of output is consumed in the domestic market and marketing is the responsibility of the Kenya National Trading Corporation. The prices for sugar and cane are fixed by GOK and promulgated by Ministerial order. All sugar is purchased by the Ministry of Commerce; the Ministry of Agriculture handles cane price; the Ministry of Finance sets the sugar price. Profit, therefore, is far less influenced by fluctuations in the world sugar price, international market quotas or ocean transport costs than by a variety of national and local factors. For example:

- differential between cane and sugar prices
- magnitude of excise taxes
- level of subsidy of sugar prices to consumers plus the method of paying for this subsidy
- climate (all cane at Mumias is rain-grown)
- care with which outgrowers follow recommended cultivation practices

- cost of transportation of cane to mill
- default by GOK in repaying MSC for contracted work, e.g., in maintaining roads
- cost and efficiency of mill operations, including capital improvements and extensive and intensive training
- social costs, e.g., for housing, schools, medical services, among other services

The play of these variables presents an endless, changing management challenge. It is a tribute to the shareholders and staff of MSC that the system works so well. As will be suggested later in the text, there are indications of problems arising out of the very size of the enterprise and the sheer numbers of people interacting between farm and mill loading dock.

### History

During the decade since manufacturing start-up, MSC growth has been truly impressive. The mill supplies roughly half of the sugar consumed in Kenya; for at least another decade, it would seem that Kenya is free of the threat of having to import. A large area in Western Kenya Province has been converted from a poverty-stricken and bare subsistence state to a lively cash crop economy touching the lives of hundreds of thousands of people. The nucleus estate, originally planned to supply at least half the cane needed, with a gradual decrease to 20-25 percent, now produces but 12 percent, more or less. Out-growers, numbering almost 23,000 by the end of 1983, deliver roughly 88 percent of requirements. Farmers who 15 years ago had never grown sugar cane or worked in a factory now manage their cane fields, man the estate, and staff the mill. Proof of the accomplishments of both management and rural people lies in results: cane yields per acre are competitive with any rain-grown crop anywhere in the Third World; mill efficiency is comparable to the best factories in Africa. GOK has been a reasonable partner, to date. Booker has had a relatively free hand

in management and has put highly qualified, committed people in the key roles. Kenyanization of management is proceeding more or less on schedule, with 13 expatriates still on board at the end of 1983 and a plan to reduce this to about five by the end of 1985.

Table 1 summarizes the key results achieved over the past five years, and adds data from 1974 for comparison. It should be noted that the losses shown for 1981 and 1982, and the failure to pay dividends for three years do not signal a breakdown of MSC. Rather, the result reflects the risk attendant to operations rooted in temporal farming systems. In this case, a period of excessive rain, followed by two years of drought, has required adjustments in harvesting rates and mill operation, in order to bring back full production by 1985. In addition, GOK pricing policies in the 1979-82 period kept the price of sugar and cane virtually unchanged, while input costs rose dramatically. A sharp adjustment upwards at the end of 1983 is expected to help the situation greatly. This emphasizes a point often made by the Commonwealth Development Corporation, namely, that investors in agro-industrial ventures like MSC require enough "patient money" to ride through the inevitable short-term downturns.

#### Organization

MSC operates under a five man Board of Directors: three represent the public sector, and both Booker and the Commonwealth Development Corporation have one seat. The General Manager is a Booker employee. Finance, manufacturing and maintenance are tightly organized and classically structured. However, the handling of cane procurement and training, both of fundamental importance and significant budget items, is of unique interest to any agribusiness centered within an outgrowers program.

TABLE 1  
Five Year Summary, with Reference Back to 1974

Kf (Kenyan Pound) 000*	1974	1978	1979	1980	1981	1982
Gross turnover	4,635	16,954	21,499	29,564	34,891	33,879
Excise on Sugar	1,241	4,396	5,521	7,780	8,451	7,349
Net turnover	3,394	12,558	15,978	21,784	26,440	26,530
Payments to cane farmers**	710	4,131	5,285	8,487	10,141	9,409
Profit/(Loss) before taxation	751	2,278	145	843	(184)	(251)
Taxation	-	707	(246)	(160)	-	-
Profit/(Loss) after taxation	751	1,571	391	1,003	(184)	(251)
Equity as at 31 December	3,317	9,582	9,123	10,126	9,865	9,614
Profit after tax as a percentage of equity	22.6%	16.4%	4.2%	9.9%	-	-
Dividends	348	1,274	850	-	-	-
Dividends as a percentage of equity	10.5%	13.3%	9.3%	-	-	-
Direct revenue to Government by way of excise on sugar and income tax	1,241	5,103	5,521	7,780	8,451	7,349
Area under cane (ha)						
Nucleus Estate	3,300	3,300	3,300	3,300	3,300	3,300
Outgrowers	-	12,400	15,400	19,500	24,300	27,400
Cane crushed -000 tonnes	-	810	975	1,497	1,566	1,294
Sugar produced -tonnes	55,700	92,500	109,831	163,510	167,402	140,179
Annual increase/(decrease) in production	-	13.8%	18.5%	49.1%	2.4%	(16.3%)
Number of registered farmers at 31 December	2,271	11,346	13,113	15,142	17,474	20,761
Number of Employees at 31 December						
Permanent	-	3,469	4,108	4,716	4,930	4,626
Seasonal	-	141	5,282	4,050	9,218	8,072

\* In 1975, Kf = U.S.\$ 2.80  
In 1982, Kf = U.S.\$ 1.89  
In late 1983, Kf = U.S.\$ 1.46

\*\* These payments are gross before deductions for the services provided under the MSC/MCOO agreement. In 1980/82, the net payments were of the order of 40 percent of the figures shown. With normal yields and better prices expected in 1983/84, the net figure is expected to be nearer 50 percent.

## Cane Procurement

As already noted, MSC manages a nucleus estate of 8500 acres, which supplies roughly 12 percent of cane requirements, an amount which could decrease proportionately should the mill be further enlarged. Internally, the estate is the joint responsibility of an Agricultural Department and an Agricultural Service Department. The former relates to production, the latter to mechanical inputs affecting land preparation, harvesting, transport and associated functions.

Both Departments are also responsible for the outgrower program. Each of the roughly 23,000 farmers voluntarily in the scheme enters into a contract which covers a minimum five year period (the time necessary to complete one seed cane crop and two ratoon crops), with specific provisions for termination by either party. The Agricultural Department establishes the practice and is charged with the extension and supervisory functions. It supplies technical inputs, such as disease-free seedlings, fertilizer and any agricultural chemicals needed and organizes the cane harvest. Land surveys, land preparation and cane transport to the mill are all the responsibility of the Agricultural Services Department.

The contract between the Company and the farmer allows MSC to enter any farm which in its judgment is not meeting cultivation timing or quality standards, perform the necessary tasks and charge the farmer's cane account accordingly. When cane is delivered to the mill, the farmer whose crop is involved (or his representative) comes to the mill weighing station, observes the weighing in and is given a copy of the machine printout. This record is also sent to the outgrowers organization, the Mumias Outgrowers Company (MOCO).

MOCO is a singularly intriguing and exceptional experiment in intermediation between farmer and MSC and between farmer and government.

When MSC started operations, contract farmers were dealt with individually, the Ministry of Agriculture being responsible for representing farmer concerns and for supplying certain educational and training services. In time, the complexity of relating to very large numbers of outgrowers, the attendant growing cost to MSC, and the ineffectiveness of GOK services, led to the need for a grower organization which might eventually take over all the costs of and control over the outgrowers program. So, in July, 1975, MOCO was legally created.

MOCO has a Board of nine directors: three represent GOK, one each from the Ministry of Agriculture, the Ministry of Cooperative Development, and the Office of the President, as represented by the District Commissioner; one each from MSC and the Commonwealth Development Corporation; and four elected by the outgrowers, any or all of whom may be reelected after serving a term of three years. This slight weighting of the Board against the farmer representatives reveals a judgment that the transfer of authority to MOCO needs to proceed with great care. Board members are not paid for their services.

The organization and staff of MOCO operate independently of MSC, but there is, as would be expected, close interaction between the Agricultural Department of MSC and the efforts of MOCO. This is clearly reflected in the patterns and functions of staff. For example:

<u>Staff</u>	<u>MOCO*</u>	<u>MSC Agricultural Department*</u>
General Manager	1	1
Zonal Managers**	0 (as yet)	2
Superintendents	3***	6
Supervisors	4	28
Village Headmen	15	96

\* The 1983 Agricultural Department budget was K£310,000 (U.S.\$459,000); the equivalent MOCO budget was K£63,000 (U.S.\$93,000). Since MOCO reimburses MSC for part of the cost of services rendered, the net MSC cost was K£117,000 (U.S.\$173,000). This subsidy added about U.S.\$0.13 to the cost of production of a metric ton (MT) of sugar.

\*\* The outgrower area is divided into four zones, for administrative purposes. There is one Board member representing the farmers in each zone. Since MOCO has no zone managers, the farmer Board members try as best they can, utilizing a travel allowance, to so function. Within their zones, committees of farmers have been organized into "units," with an elected leader. In addition, taking advantage of the fact that MSC practice requires farmers to form blocks of no less than 15 acres to minimize the costs of production and harvesting (average size of canefield, per farmer, is 3.5 acres), block leaders are elected to more truly reflect farmer concerns and to more intimately pass on information.

\*\*\* One of these is being trained to administer a test area, with the same level of responsibility as a peer from MSC. It is too early to evaluate this first attempt to transfer more responsibility (and cost) to MOCO.

Financially, the interlocking system of MOCO/MSD is also instructive and has broad implications for project design elsewhere.

1. MOCO is a legally constituted company with no paid-in capital but with what is called "a guaranteed equity." This means that every member guarantees to pay in 50 pence on call by the Board of Directors. Membership in this sense includes the organizations represented on the MOCO Board of Directors.

2. The financial base of MOCO was secured by loans from the Commonwealth Development Corporation at 5 percent interest; from the GOK at no interest and no definite rate of repayment; from the British Government at 7 percent interest,

and, from the Kenya Commercial Bank at 10 percent interest. All interest charges are on the outstanding balance. At the end of 1982, the total loan balance was Kf2,700,000 (U.S.\$3,996,000, at the current rates of exchange).

3. In addition to loan capital, MOCO receives income from interest charges on credit extended to members. In 1982, interest received was Kf68,000 (U.S.\$101,000).

4. MOCO also receives a levy of 6 K Shillings (U.S.\$0.45) per MT of cane delivered to the mill. As of December, 1982, the balance in the levy account was Kf1,728,000 (U.S.\$2,558,000). These funds are used first to repay loans.

5. MSC provides services to each farm, in accordance with its outgrower contract. This service work is, in effect, contracted to MSC by MOCO. MSC bills MOCO, in accordance with a fixed schedule of charges and, theoretically, payment is made in full. In actual fact, MOCO cannot sustain 100 percent payments and the difference is subsidized by MSC (it has already been noted that in 1983, MSC subsidized 38 percent of these costs).

It is premature to judge the potential ability of MOCO as the instrument through which to optimize the benefits of MSC which flow to the farmers, and to establish a relationship of trust, mutual responsibility and deep understanding between MSC and the rural people. The concept of MOCO is creative and worth the investment. But its task is enormous. What is most likely to threaten its usefulness would be to assign a bold approach and not allocate the resources needed to do the job. At present, what MSC would, ideally, like for MOCO to do...what the Director and MOCO Board agree ought to be done...is far from what MOCO is equipped to do.

## Training

To quote from a memorandum prepared by Mr. R. M. D. Glasford, General Manager of MSC:

"From the outset it has been the objective of MSC to train Kenyans for all technical, supervisory and managerial positions. Training has, as a result, received prime emphasis, and the record of the last ten years indicates the success of this policy...the Company carries out training at all levels in agriculture, personnel management, engineering, sugar technology and accountancy. A Training Centre, the first of its kind in the sugar industry in Kenya, was opened in 1977. An apprenticeship scheme is operated for artisans and for several years now, the Company has recruited more apprentices than the rest of the sugar industry put together."

In effect, there are two distinct categories of training provided, namely:

1. The Craft Apprenticeship Program is a national scheme under the jurisdiction of the Directorate of Industrial Training in the Ministry of Labour, financed by a levy against all industry. In the case of sugar, companies such as MSC pay K Shillings 4 (U.S.\$0.30) per MT of production into an industry pool, against which MSC can claim certain costs. Apprentices are recruited by MSC from among the graduates of eight Technical Schools in Kenya. These graduates would have received the Kenya Certificate of Education. When apprenticed to MSC, the students are then sent for further preparation to one of three training centers run by the Directorate of Industrial Training (Mombassa, Nairobi and Kisumu). The fact that there are only three such training centers is a constraint on the growth of the program. Any new agribusiness venture in Kenya would be faced with the necessity of integrating this program, physically and in terms of human development, into the enterprise on a long term basis.

The course goes for three years. Students are given housing and are paid a salary which increases over time, based on a sliding scale of percentages of income set by GOK. Graduates are under no obligation to work at MSC upon

completion of the course; MSC is under no obligation to hire graduates. As Mr. Glasford notes, however, many want to stay and are hired. This is a natural consequence of mutuality of understanding and a familiarity with MSC conditions of work, gained by on-the-job experience during the three year program. Since the program began, there have been 120 graduates. At the time the mill was visited in late 1983, there were roughly 20 students registered in each of the levels...a total of 57 actually.

2. Internal Development Program, fully supported and controlled by MSC, is flexible, adaptive and aimed at providing upward mobility to every class of employee. For example:

a. New graduates from university are recruited for a two year management training course. Most of the experience is on-the-job in different departments of MSC, with occasional opportunity to spend time with other companies (not necessarily sugar mills). The Company suggests that within six months, it is possible to identify those most likely to succeed in management roles. For those judged to have unusual promise, the inclusion of overseas training is considered a must. This program has undoubtedly contributed significantly to the ability of MSC to Kenyanize carefully, systematically and satisfactorily.

b. Any employee with a minimum of two years of employment and meeting the requirements of a testing program and certification by his or her superiors, may volunteer for one or another of several opportunities. Some may be sponsored by MSC and released to study at either of the two Polytechnic Institutes in Kenya (Mombasa and Nairobi), while remaining on salary. Others may take courses of varying length, some offered on released time, others at night, aimed at upgrading skills, responsibility and pay.

Given the remote location of MSC, the traditional culture of the people of the area, and the speed with which MSC introduced cane cultivation and

factory operations, investment in human development is both a necessity and an obligation. For the more capable workers, the MSC training program is key to upward mobility, a track not readily followed in rural Kenya. In its totality, purpose and performance, the MSC training effort is impressive and judged by management to have a high rate of return.

### Outreach

What MSC does is extensive:

1. Over the past ten years, MSC has built and maintained over 3100 housing units on five separate sites centered in local communities reasonably close to the mill. Major roads have been improved in these areas and maintenance is carried out by the Company on behalf of GOK.

2. Under the Mumias Sugar Roads Scheme which was financed by a grant from the British Government to GOK, a 316 km network of feeder roads and over 2,000 kms of access roads and tracks within a 24 km radius of Mumias Township, have been constructed and improved to facilitate cane personnel and product transport. These roads have had the additional benefit of allowing access to areas by vehicles which formerly were only accessible by footpath.

3. When an outgrower enters the scheme, MSC inspects and surveys land intended for cane cultivation. It has been considered important to ensure that no farmer is completely contracted for cane and that the farmer retains an area large enough to produce sufficient food to feed his family.

4. Medical facilities from a fully equipped MSC health center are available free to all employees. The center is staffed with a full time doctor, two medical assistants and three nurses. A laboratory and minor operating theatre have recently been added.

5. MSC built and maintains an elementary school which has reached its limit of 1600 children of employees. GOK pays the teachers.

6. The company Training Centre has just begun (1984) an outgrower development program, with an initial emphasis on "training the trainers," so that impact can multiply rapidly. This program will focus first on MSC Agricultural Department extensionists and village headmen who function as key communicators among the farmers and farm families.

What MSC does not do, directly, formally and operationally, is to take responsibility for the further development of the worker communities, the out-growers and their families, and the people in the extended area so heavily impacted by the establishment of MSC. For example:

1. It was hoped that outgrowers would grow the food needed by the families, and, possibly, produce some other cash crops for the local market. Yet, in effect, there is no organized program to encourage this development, and there are indications that the opportunity has gone begging.

The farmer directors of MOCO would like to do more about this, as would the management of MSC. In the case of the latter, a statement by an executive of BM is revealing of both need and opportunity:

"Now that the development of MSC is nearly complete, a proportion of our energies...might well be directed to some other activities. On the agricultural side, we are particularly interested in three areas: food crop development; afforestation; and machinery reclamation. On the organization of credit, we would like to find means of advancing further credit to farmers for weeding. We would like to tie it to performance, as weed control...continues to be a significant constraint on yield levels."

Another BM manager goes on to comment:

"My own great disappointment with the scheme (MSC) to date is that we have not been able to persuade male farm owners to devote their own labour to the cane operations. Many farmers...depend on their wives and children to do the manual farm labour. This is, of course, fairly traditional... In effect, the farmer is entirely unrealistic, expecting to live like a landlord off his small cane area instead of being a working farmer."

And, as of early 1984, Mr. Glasford, the resident General Manager of MSC, wrote:

"On the question of other cash crops we are still, along with MOCO, trying to get a credit source to get this programme off the ground."

Since neither MSC nor MOCO has the resources to do the job, GOK might well be thought to have the responsibility. However, the truth is that public extension services in the area are all but non-functional. The challenging question persists: How is this outreach to be attained to?

2. The MSC development has pumped large amounts of cash into the area, more every year as the Company has grown and the outgrower area enlarged. There was no precedent among the people guiding the responsible and creative use of this money...no agency took responsibility...no program exists today. While there are few facts to go by, it is clear that the cash economy created so quickly has had widespread and disruptive impact on family life, on relations between husband and wife (or wives), on the food economy, among other aspects of life style.

3. The money flowing from MSC activity into the area, it is estimated, touches the lives of several hundred thousand people, as mill worker families, farm families, merchant families, and the families of suppliers of services. In all, MSC has released a powerful force for diversified economic and social development. There is little visible evidence and no data to suggest that this opportunity is being grasped. There is no discernible center of leadership and competence.

MSC investors and management are aware of, concerned about and frankly puzzled by these challenges to their outreach program, and to the value of their entire enterprise. Discussion is constant. Uncertainty over appropriate action remains. Four broad, difficult, basic questions remain to be answered, not only by Kenya and MSC, but by agribusiness anywhere in the world which is

sited in a rural area and which becomes the dominant, if not single new force for change. As they emerged from interviews in London, Nairobi and Mumias, these questions may be paraphrased, as follows:

- Is not the Government the logical and proper agency to take responsibility for capitalizing in diverse ways on the development opportunities created by private (at least, profit-making) enterprise?
- If, however, Government cannot and does not take responsibility, for reasons of real economic duress, lack of staff and organizational capability, or for other reasons, as is the current situation in Kenya, then should it be expected that the enterprise involved take responsibility?
- If the profit-making enterprise, whoever owns it, does take responsibility, how can the time and cost necessary to train people and apply them to the job, be allocated without jeopardizing the viability of the business, without which everything would collapse?
- If neither the Government nor the business can afford the responsibility and yet it is agreed that broad, integrated rural development is both desirable and necessary...will inaction beyond present limits threaten the movement of cane to the mill in the future...will outgrowers continue to be motivated by the desire to earn money...will time resolve development problems as people adapt through their own intelligence to changed circumstances?

After a review of the benefits resulting from the Mumias Sugar Scheme, these questions will be addressed further, in terms of their policy implications.

#### Pay-Off

For GOK - Benefits to the people of Kenya have been impressive. MSC supplies roughly half of domestic consumption of sugar. MSC is clearly responsible for attainment to self-sufficiency in this commodity, with resultant savings in foreign exchange estimated to exceed Kf100 million (U.S.\$148 million at late

1983 conversion rates). In addition, MSC has paid Kf45 million (U.S.\$67 million) in excise and income taxes.

The scheme represents a large government investment in land, equipment and people, with total current assets valued in excess of Kf60 million (U.S.\$89 million). A poverty-stricken, static, subsistence area of high population density has become the center of a vigorous cash economy. Mr. Glasford, General Manager of MSC, suggests that "upwards of 350,000 persons are dependent in some way for their livelihood on the Mumias Sugar Scheme."

For GOK, MSC most certainly is a success.

For Booker Agricultural International - The success of MSC can only be a source of satisfaction and pride for Booker. The achievement has surely been to the advantage of the company's professional image, internationally. Too, while not available in exact figures, return on equity and income generated under the terms of its management contract would seem to have been satisfactory.

For Other Investors - Returns to the Kenya Commercial Finance Corporation, the East Africa Development Bank and the Commonwealth Development Corporation, all financed by the public sector, would also seem to have been adequate, both in terms of return on equity and in development terms. The latter point is well illustrated by the following excerpts from publications issued by the Commonwealth Development Corporation (CDC).\* (Italics added)

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\* CDC itself is a model catalyst for the stimulation of free enterprise, investment in agribusiness and rural development. It has pioneered in adapting the nucleus estate concept to a wide variety of circumstances throughout the world. CDC is an important institution to understand, and as a matter of global policy, perhaps emulate in other developed countries. For this reason, more detail on CDC will be found in the case report covering Swaziland and the role of CDC in the Swaziland Irrigation Scheme/Mhlume Sugar Company/Vuvulane Irrigated Farms complex.

"CDC is a statutory corporation whose capital derives from the British Government, by means of an authorization to borrow long, medium and short term funds from the U.K. Exchequer."

"CDC is charged with assisting overseas countries in which it is empowered to operate in the development of their economies. CDC does so by *investing* its funds in development projects which not only help to increase the wealth of these countries but also *yield a reasonable return on the money invested*. Its area of operations covers Commonwealth countries which have achieved independence since 1948, the remaining territories dependent upon Britain, and, with Ministerial approval, any other developing country."

"CDC does not offer aid as such; it offers investment in the development of resources. *Although the Corporation has no equity capital, it must pay its way like other commercial concerns*. CDC aims to revolve its funds and when a project is successfully established, it is prepared to consider offering participations on suitable terms, particularly to buyers resident in the country where the project is situated."

The success of MSC, therefore, and even the unresolved problems which have emerged, constitute a major pay-off for CDC (and the other public sector investors). There has been a reasonable return on money invested and the decade ahead looks bright. National wealth has increased. People and land, the most basic natural resources in Kenya, have been developed, and much has been learned to apply elsewhere in Kenya, East Africa, and even further afield.

For the Rural People - Returns to the rural people are more ambiguous than those to investors, and depend for their assessment on the definition used for "satisfactory pay-off" and whether the focus on the people pinpoints employees, contracted outgrowers and their families, or the hundreds of thousands in the total area impacted.

Employees - For the 5,000 employees with steady jobs and regular income, benefits are unequivocal. Along with wages, MSC provides housing, medical care for the whole family, a good elementary school and the hope that these children might go on to further education. Basic training, upgrading skills, upward mobility, enhanced status and personal dignity are all practical objectives in

the total context of opportunity MSC has created. There is a union through which to speak; management has certainly established an ambiance of openness to discussion. Whatever else might be wished for the workers, during the next decade of MSC operations, much that is positive and progressive has entered the lives of these people. To a lesser degree, many of these same benefits accrue to the advantage of the 9,000 part-time workers. However, their lot may be better considered along with the people in the larger area influenced by MSC.

Outgrowers - If money alone is the measure of pay-off, then the return to farmers from their participation in contracted cane cultivation has been great. In 1982, Table 1 notes that payments to outgrowers reached K£9.4 million (U.S.\$14 million). MSC management predicts that in 1983, due to a 33 percent increase in cane price and an expected increase in yield, this payment will almost double. Not only are the sums large but it is to be remembered that only ten years ago, practically all of these farmers lived by subsistence farming, existed in poverty and few had any hope that the situation would ever change.

There are opinions, however, that a money measure is not adequate and that a better indicator of pay-off is the response of outgrowers to the income. While there has been no careful study of the behavior patterns of the outgrowers and their families which have grown out of the MSC experience, there are indications of a negative nature suggesting that there are serious social and economic distortions taking place. For example,

1. After a harvest, when MOCO and MSC settle the accounts of the outgrowers, the system calls for the net payment to be deposited in the local bank at Mumias Township. According to the bank manager, little of this money is left in the bank very long. Where it is spent is impossible to determine with any accuracy. What is known, however, is that in all too many instances,

the money is dissipated rapidly, leaving families without funds for many months at a time (there may be as few as three harvests in five years for the majority with minimum-sized cane plots). Neither the credit nor contract system, nor MOCO and MSC extension efforts, nor any form of intervention by GOK, seems geared to deal seriously with this problem.

2. Interviews with women confirm the widespread nature of the problem. Their complaint is that a majority of men do not inform their families about the amount of money paid by MSC (the figure of 75 percent was often used). Frequently the men go away from home for weeks and months at a time without leaving money for food or other basic necessities, e.g., school fees, clothing, soap, among other items. Again, the system does not take this possibility into account. There is a procedure whereby a family, with support (a letter) from the sub-chief involved, can petition MOCO to apply corrective action, but it is questionable as to effectiveness.

3. Historically, subsistence farming involved the labor of the entire family. The advent of schooling decreased the input of children and, with introduction of sugar cane which requires intensive labor for cultivation practices, the absence of children has contributed to a labor shortage. This is exaggerated by the fact that weeding is hard labor and the rate of pay is very low. One result has been the influx of needy laborers from Rwanda and Burundi and other distant places; another result has been an added burden on the women. Since the outgrower men have so often been secretive and self-serving in the use of harvest money, women, to get any cash, have been demanding a wage from their husbands for cultivation chores. Many men have refused to pay family labor. In turn, this has led some wives hiring their labor to other outgrowers, for cash, leaving husbands to hire other women or migrant labor.

A complex series of interactions affecting family relations, cost of cultivation, food prices, housing for migrants, personal relations with outsiders, schooling, health, among other basic and intimate aspects of life, inevitable and predictably arise out of such conditions. The outgrower community gets little or no help in resolving these issues. Illiterate in the majority... thrust rapidly into a major change process with no on-going preparation except technically vis-a-vis cane cultivation...who benefits, who suffers?

This report is not the place to labor the point further. There are other examples at Mumias of the stresses and strains which develop when rapid change is introduced to large numbers of traditional rural people. Whether or not, if adjustment is left to the people, the potential for societal rupture is a threat to the prosperity of MSC, is a difficult question to answer. However, it is a serious question for investors who are responsible for generating change; for GOK, which has far more at stake than income and foreign exchange savings; for other governments, e.g., the United States, which would like to encourage both economic and social development simultaneously, through the instrumentality of private, profit-making enterprise.

For All the Rural People Impacted - There is no doubt that cash flowing from MSC has introduced a vigor into the area economy which was not there before. There is a hustle and bustle in the environment. But the actual pay-off to hundreds of thousands of people is almost beyond measure. No one has tried to quantify the impact on their lives. Still, to the experienced eye, an impression of the area comes clearly into view, best characterized by a sense of "futures foregone." The economic energy released by MSC into the area has not motivated area development. True, there are stores, there is a bank in Mumias Township, there are services such as garages, there are trucks...but considering

that a decade has gone by since MSC began to produce sugar, it all seems incoherent. There is no guiding force. The place is redolent of lost opportunity.

To speak to area development, what is, what might have been, what could be, is not to imply criticism of MSC. There must be an end to corporate responsibility. The fact is, however, that if the success of MSC had been played out in an early scenario of the possibility, the opportunity for a much more diversified area development might have been foreseen. It might well be argued that the partners in the Mumias Sugar Scheme had the knowledge, experience and creative talent to predict what might take place, as well as how advantage could be taken of the result. In narrowing down on the task of MSC itself, there were indeed, "futures foregone." MSC classically illustrates the fact that if development and corporate objectives are to be blended in enterprise creation, then both perspectives are best introduced at the beginning of project planning.

### III

#### Policy Implications

##### For the Company

The dominant policy considerations of the next decade relate to ensuring an adequate supply of quality sugar cane. The mill itself is complete. Planned capacity has been reached. It seems reasonable to suppose that Booker management will go on, despite the Kenyanization of increasing numbers of key posts. However, with outgrowers supplying 88 percent of the cane needed, responsible and continuous cane production is vital to future success.

Two factors would seem to govern what outgrowers are liable to do: first, the price of cane relative to the costs of production, harvest and delivery; second, the attitudes held by the farmers toward MSC. In the first instance, as is thoroughly appreciated by MSC management, policy calls for continuous negotiations with GOK, to the end of working out an improved system of price adjustments.

In terms of outgrower attitudes, there is, perhaps, a need to broaden and deepen the relationship between farmer, farm family and MSC. MOCO represents a policy thrust in this direction. Realistically, however, MOCO will require many years of nurturing before it can secure for MSC the loyalty, constancy and sense of responsibility needed. MSC may find it necessary to give more attention to the outgrowers as volatile human beings caught up in a change process dimly understood, who are not likely to act always in predictable or logical (in the eyes of management) ways. Economic incentives may not be adequate to ensure performance. At the least, it is suggested, policy might provide the means to assess the human development issues which have emerged out of the dynamic growth of MSC and to set a course toward a sensitive, skillful program of conflict identification and resolution.

### For the Host Country

GOK is not likely to change its role in fixing cane and sugar prices. Its policy, therefore, needs to emphasize the need to change the method of calculation. Price determination should be made continuous and announcements should be based on the necessity of protecting farmer income, motivating cane cultivation and ensuring the profitability of the mill. Present methods of analysis and reporting by the National Sugar Authority are slow, not fully rational and create unnecessary uncertainties. Actually, the situation in the sugar industry raises questions about the efficacy of all public marketing boards in Kenya and the entire system should be carefully examined to determine the cost/benefit relationships to national accounts and consumer income.

In terms of rural development, GOK needs to exercise dynamic leadership if the benefits of agro-industrial investment are ever to be fully realized. No investor or prudent manager is likely to risk scarce resources on an extended socio-economic development program unless encouraged by the force of public policy which makes the will of Government unequivocal. But the will of Government will be ineffective unless backed by collaboration in financing, manpower and the allocation of other resources necessary to facilitate the task and make it feasible to entertain.

Finally, the MSC success story suggests that GOK policy re Kenyanization of management avoid being dogmatic. Agro-industrial ventures are exquisitely complex and sensitive, even when their responsibility for human and area development is narrowly defined. They will become more so, by far, if GOK encourages the enterprise to embrace development responsibility more broadly. To manage and express the necessary qualities of leadership calls for a rare combination of training, experience and personality. GOK policy should make it possible to tap the talent pool, worldwide, if it is clearly determined that the need is greater than the urge to national self-sufficiency.

For the U.S. Government

If the policy implications for MSC and GOK are defensible and acceptable, then logic suggests certain policies vis-a-vis agro-industrial development in Kenya which might well be emphasized, namely:

1 With reference to agro-industries already in existence in Kenya, U.S. aid might be extended programmatically to ensure that any opportunity created for vigorous integrated rural development is not lost. This policy would be independent of the source of capital in the venture. Rather, it would emphasize the importance of well-managed, profitable, rurally-sited enterprise in catalyzing socio-economic progress. For example, in the MSC case, U.S. aid might focus on the needs and potential of MOCO, in realization of the great potential for area development and the scarcity of resources to capitalize on the opportunity.

In point of fact, every one of the more than ten agro-industrial enterprises studied or contacted briefly in Kenya, evidence exciting opportunities to build on their commercial success to new heights of extended benefits. Yet, not one company was prepared to take financial and operational responsibility without the full policy support of GOK and without financial support arising outside of their business cash flows. On the other hand, no one with whom the idea was discussed was disinterested in the possibility of a joint venture with aid agencies which would not detract from the profit-making function even while it risked beyond traditional corporate limits on activities in development.

2. Beyond capitalizing on development opportunities generated by existing agribusiness, it would seem desirable for the U.S. aid agency to relate as closely as possible to investors considering new investments in agriculturally-related, rurally located enterprises. This would help ensure that feasibility analyses included the costs of integrating the production function with the function of development. In this way, the implications of success in economic

terms could be examined for their impact on people and the opportunities to be anticipated relative to area socio-economic dynamics. Further, such early collaboration between public and private investors could help in the invention of the means to blend corporate and developmental objectives into a harmonious, financially viable management system. All this would require strong policy backing on the part of the U.S. Government, both to influence acceptance of the approach by GOK and to ensure adequate financial resources for the country AID Mission.

3. U.S. policy might well more strongly urge GOK to reconsider its role in price control and marketing, as well as in the ownership and management of unprofitable agro-industrial enterprise. Such an intervention need not be based on ideological arguments. Rather, AID might undertake more studies of the type done on the Kenya Seed Company ("Kitale Maize: Limits of Success," published in May, 1980) which present the case in factual, analytical terms. It is significant, in this regard, to note that immediately after the coup d'etat of August 1, 1982, President Moi took steps to reassure investors, and, among other things, promised to remove the government from inefficient business enterprises and said the government would avoid direct participation in business henceforth. In this arena of potential ideological conflict, it is vital that Kenya be supported with indisputable facts with which to argue for the position.

4. A policy in support of training Kenyan professionals in a very wide spectrum of fields has always been basic to U.S. aid. This policy might well be extended to include rural development as an adjunct to agro-industrial enterprise. It may be timely to give recognition to worldwide experience which suggests that agronomists or other technicians, economists or other social scientists, or politicians however skilled, do not necessarily make good managers of integrated rural development. This is likely to be even more the case when development

goals are integrated with those of a profit-making agro-industrial system. Therefore, training for the field needs to grace rural development and enterprise development with their own unique professional character and provide special training suitable for the task.