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KENYA SECOND LIVESTOCK DEVELOPMENT PROJECT

REPORT ON A VISIT

BY

A J CRONIN

MINISTRY OF OVERSEAS DEVELOPMENT
Eland House
Stag Place
LONDON
SW1E 5DH

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PREFACE

Each year the Overseas Development Administration (ODA) commissions a number of ex-post evaluation studies with two aims in mind; firstly, to assess the effectiveness of its aid activities and secondly, to learn lessons for improving the effectiveness of future aid activities.

This evaluation is one such study.

Evaluation studies are undertaken by individuals or by teams especially recruited for their particular knowledge with regard to the subject under study. Sometimes these teams will include personnel from ODA (increasingly teams are a mix of ODA and external personnel).

In all cases the reports and conclusions are attributable to the authors, who are finally responsible for their contents, and not to ODA.

Evaluation Unit
Manpower and Evaluation Department

REPORT ON A VISIT TO THE LIVESTOCK MARKETING DIVISION

THE BRITISH AIDED COMPONENT OF THE

KENYA SECOND LIVESTOCK DEVELOPMENT PROJECT

Manpower Planning Unit
ODM, May 1978

A J Cronin

SUMMARY

The Livestock Marketing Division (LMD) is the British-aided component of the Second Livestock Development Project (SLDP) which aims to improve the livestock industry in Kenya.

In recent years LMD has found it impossible to maintain a consistent operation, mainly because of climatic extremes and a statutory beef pricing policy which has inhibited its commercial operations. However, recently the situation has been improving.

An important function of LMD is to quarantine animals from the north of Kenya to prevent disease reaching the healthy animals in the south; this is a risky and unprofitable operation which will probably soon be subsidised.

The SLDP as a whole has been scrutinised by a Review and several Supervision Missions. They have found the ranches, notionally LMD's main customers, to be in a poor state of organisation and development, and have advised changes in the beef pricing policy as a way of aiding them.

Over the next two years the operations of LMD should become more stable, and much more relevant data will be made available.

ACKNOWLEDGEMENTS

Mr A M Mutai, Head of the Livestock Marketing Division in Kenya kindly supported the familiarisation visit. Very special thanks go to the British TC staff in LMD Nairobi, Mrs White, Mr Dorey, Mr Evans and particularly Mr Meadows, all of whom gave unbounded time, guidance and information.

Messrs Warren, White, Cashin, Hart, and McGinley of the Development Division and BHC in Nairobi gave considerable advice and assistance, as kindly did Mr Thorne and Dr Halpin at the ODM.

Messrs Ellis and James at the Department of Agriculture and Horticulture, University of Reading, kindly made several valuable suggestions for this Interim Study.

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1. Background to this Study

a. The ODM is interested in broadening its knowledge about participating in the livestock sector. It has already received a Sector Analysis*. This paper reviews the British capital aid input into the Livestock Marketing Division (LMD) of the Kenya Second Livestock Development Project (SLDP).

b. This paper began life as a desk study in late 1977. By fortuitous coincidence, the author had to go out to Africa in connection with an entirely different project, and an eight working day stopover in Kenya was arranged at the end of April/beginning of May for a familiarisation visit to LMD.

c. This familiarisation visit proved especially useful. Besides having a sight of the project, data and statistics not available on the ODM files were obtained.

d. During the familiarisation visit it became clear that any evaluation of LMD now would be premature. The reasons for this are elaborated later in this Study: they include that the SLDP generally and LMD in particular are still at the implementation stage and not fully-dispersed projects; data essential for a sound evaluation such as numbers of livestock, price movements etc, are still being compiled; and since LMD has been operating in its present form for only a very short time it has not perhaps passed through a representative range of operating conditions. After extensive discussions with the British High Commission and the Development Division in Nairobi, and Mr Thorne, Dr Halpin and Mr Davie, Animal Health Advisers in ODM, it was agreed that the best form this paper could take would be not an Evaluation Study, but a briefer Interim Study from which an Evaluation Study could be developed at a later date.

2. The First Livestock Development Project (FLDP)

The recognition of the importance of the beef industry in the agricultural sector in Kenya led the IBRD to finance its first livestock development project in Africa. This First Livestock Development Project (FLDP) provided funds for: the development of commercial, company, group and individual ranches; facilities for marketing cattle; range development in the North East and the provision of technical services in the Ministry of Agriculture and Agricultural Finance Corporation (AFC). The credit of US$3.6 millions was given in September 1968, but due to various institutional problems

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*An Analysis of UK Bilateral Aid in the Livestock Sector, R Vaughan Evans, for EPS, ODM, 1977.

the Project did not really get underway until January 1971. The Swedish agency SIDA and the Kenyan Government also gave Finance; there was no UK capital aid input for this first project. Disbursements were completed in July 1974.

Although there was no UK capital aid input into this First Project it must briefly be discussed since the Second Project, to which the UK is a donor, stems out of it.

The First Project was conceived as the first stage of a comprehensive approach to develop a more structured beef industry in the Kenya rangelands. Its principal objective was to increase beef production, particularly by the traditional pastoral societies. The main emphasis was put on fattening steers.

The IBRD evaluation was guarded; on the one hand it was felt to be "..... a well-conceived and imaginative project, which addressed the development of the traditional cattle raising system", but on the other hand organisational and management problems seriously hampered its effectiveness.

According to IBRD its successes were:

a. Full or partial development on a satisfactory number of ranches.

b. Reaching the anticipated livestock marketing target of 50,000 animals.

c. With the funds available achievement of only one fifth (0.9 million ha) of the planned range development in the North East due to overly intensive development of water supplies.

d. Improved services.

e. Promotion of social change in the range areas and the testing of different ranch types.

The problems included: overstocking; appearance of a cost-price freeze affecting ranch profitability; and the need to improve ranch and project management. The most troublesome feature of the First Project was the organisation of its implementation. The World Bank made the creation of three new agencies in addition to the involvement of three existing Government Departments a condition of the award of the loan; "this proliferation of administrative units put an unnecessary burden on the limited national supply of qualified technicians; exacerbated tensions and created conflicts between the original and the new agencies as well as between the new agencies themselves; and forced IDA to request that another organisation ... be created to serve as coordinator. This [last organisation], lacking a clearly defined leadership, functioned only until 1970 and never accomplished its duties as a coordinator."

3. The Second Livestock Development Project (SLDP)

Nonetheless the First Project was found to have been successful enough for the Second Project to be appraised in 1972 and become effective in December 1974. "Similar in concept to the successful First Project the Second Project was designed as a broadly based 5-year integrated program to increase Kenya beef production and improve range infrastructure; it also contains a wildlife development component." Its main features are given as:

a. *Establishment and/or improvement of:

i. 21 Company and Co-operative ranches (590,000 ha) in unoccupied, or underutilized, or poorly managed land in Coast Province and Kitui.

ii. 100 existing commercial ranches (340,000 ha) in Nakuru, Laikipia, Nyandarua, and Machakos districts;

iii. 60 group ranches in the pastoralist (960,000 ha) areas of Kajiado, Narok and Samburu districts;

iv. 3 feedlots outside the disease free zone, one each in Narok, Kajiado and Western Kenya (subsequently not financed).

b. Development of 2.8 million ha of grazing land in the North East Province and 1.2 million ha in Isiolo District through provision of water facilities and access roads;

c. Improvement and/or construction of new livestock marketing facilities (31 new cattle markets) and services, (30 new) holding grounds, stock routes; provision of (10) cattle trucks and (5) trailers; (this is the component funded by the UK).

d. Partial development of three game parks/reserves;

e. Establishment of a census and monitoring unit to provide up-to-date baseline data on wildlife, livestock and cultivation in pastoral areas;

f. Provision of technical service including:

i. support of Agricultural Finance Corporation (AFC) Ranch Section (one of the three new bodies established at the IDA's request; see above);

ii. a pleuropneumonia mobile testing unit for the Veterinary Department;

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*These ranch types are explained at 6.a. below.

iii. Overseas training;

iv. a feasibility study of the livestock and meat industry (the "Chemonics Study");

v. project monitoring and evaluation and future project preparation (by International Livestock Centre for Africa, ILCA);

vi. a project co-ordination unit set up in the Ministry of Agriculture to co-ordinate and supervise project operations.

The total project cost was US$59.7 million of which IDA was projected to meet US$21.5 million; USAID at least US$7.3 million (for some ranch development and North East Water); UK not less than US$3.7 million for livestock marketing; the Canadian Government not less than US$2.4 million for Isiolo water development and the census and monitoring component of wildlife development; the beneficiaries US$8.6 million; and the Kenyan Government the remaining US$16.2 million

Although the total programme of which it was a part will be kept in mind, the UK-funded livestock marketing component will be concentrated on in the rest of this Study. This is a distinct component and so amenable to analysis in some isolation.

4. The British-aided Component: The Livestock Marketing Division (LMD

a. Prior to 1968 the Government played only a small part in livestock marketing in Kenya. During the Second World War the Colonial Government formed a marketing organisation under Veterinary Department control to obtain meat from the overstocked pastoral areas for British and South African troops, and later, Italian prisoners of war. Until the implementation of the FLDP there continued to be a marketing section under one guise or another in the Veterinary Department; it was previously known as the African Livestock Marketing Organisation which handled about 17,000 head of cattle annually.

The LMD today is primarily a middleman, the first step in a larger marketing system; it buys cattle from pastoralist raisers (or traders who have recently purchased them from the pastoralists), quarantines, then transports the cattle for resale either for fattening by secondary producers or immediate slaughter by (mainly) the Kenya Meat Commission.

Besides providing a vital intermediate marketing link between sellers and buyers, LMD facilitates many other benefits to Kenya notably preventing the spread of disease from the poorer cattle in the north of the country to the high quality herds in the centre (see "The Everyday Functions of LMD", below). Also, importantly, it relieves pressure on the northern arid lands by taking away cattle that would otherwise be grazed there.

b. Livestock Marketing under the FLDP

The largest single component of the FLDP was the provision of loans for ranch development; this ran into some serious problems, but they were not of sufficient consequence to livestock marketing activities to be worth closely considering here. The LMD was also affected by the advent of the FLDP. It was moved from the Veterinary Department to the Ministry of Agriculture, and in its new home was one of the three new agencies mentioned in "The First Livestock Development Project" above. It was also a time of expansion for LMD*;

> "the project provided for physical facilities (establishment or improvement of stocking routes, holding grounds, veterinary facilities, quarantine stations, etc) and organisational structures (the creation of LMD) to ensure a steady flow of "immatures" (feeder cattle) from the low potential range breeding areas to the higher potential range fattening areas (a long-term move to facilitate further development and stratification of Kenya's beef cattle industry) and to provide the "immatures" required by the project ranches. This component progressed according to schedule. Construction or improvement of facilities and marketing objectives were achieved (and usually surpassed)."

5.a. The SLDP in difficulties

In February and March 1976 the IBRD held a Review Mission of the SLDP, following the recommendation by the Second Supervision Mission (November 1975) for a complete review. The two preceding Supervision Missions had reported various problems including weak project co-ordination, slow implementation, very slow ranch development, escalating project costs, and an unfavourable Government beef pricing policy. In the words of the Review Mission:

> "By the end of 1975 the project was in trouble. The ranching development program which comprised 72% of Project costs had virtually stopped; the majority of IDA and USAID funds were originally earmarked for this category. The range water program (8% of Project costs) was proceeding but was encountering problems with follow up organization of grazing management, responsibility for maintenance of water supplies and marketing of stock. The Livestock Marketing Division (9% of Project costs) was holding 50,000 immatures for which there was at the time no market. The wildlife component (6% of Project costs) was going very slowly with a number of key problems remaining unresolved. The organizational and technical arrangements were in need of improvement (5% of Project costs). Only US$300,000 of IDA funds had been disbursed at year's end instead of an estimated US$4.2 million. The second Supervision Mission in November 1975 recommended a complete review."

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*Unfortunately the World Bank documents give no details and since none of the inputs were ODM funded, our own files do not have details.

The Review Mission came up with a long and intricate list of conclusions and recommendations. These included a call for the Government to increase the prices paid by the Kenya Meat Commission (KMC) to the ranches; make more working capital available for the ranches; more careful control of stocking rates on ranches; improve ranch management and budgeting; more extension and follow-up help to ranches; development of ranches such that they concentrate more on fattening immatures; special attention to the Masai group ranch programme.

The emphasis of the Review Mission was very much to save the ranches, almost all of which were performing poorly and were debt-ladened. Indeed, it could be argued that the Review Mission's overall analysis was one slanted heavily in favour of the ranches (in which there was extensive IBRD and USAID investment through the AFC) at the expense of the livestock sector as a whole:

> "After satisfactorily concluding the first project the second one, eighteen months after signature, had run into serious problems in all components. The ranching development program has been slower than expected, particularly the development of the group ranches. Returns from ranching are depressed because producer prices between 1973 and 1976 increased about 38%, while ranching operating costs increased 90% and some capital investment costs even more; as a result new company ranches with less than 20% participant equity are on the verge of bankruptcy and other ranching enterprises have been making little, if any, profit, thus increasing the risk of major loan defalcation to AFC and eliminating the incentive for further investment. Overstocking was becoming a major problem as project commercial and company ranches vainly tried to increase their incomes by keeping more cattle and pastoralists were unable to maintain the agreed group ranch stock quotas. Feedlot production had levelled off at 20,000 head per annum, and those operators without contracts at special prices (ie all the IDA financed lots) had reduced or stopped producing. The Livestock Marketing Division, having successfully built up its capacity, had 50,000 feeder cattle from the North East unsold in the holding grounds with no one with grass or money to buy them; it was losing KSh.5.0 million per year. The North East range management and water program was proceeding but with market prospects for immatures dimmed, and the problem of responsibility and payment for operating the facilities already constructed causing problems. The Kenya Meat Commission lost KSh.10.0 million in 1975 because the corned beef made from unfinished range cattle could not be sold profitably and because deliveries of good quality cattle declined - the latter being the only type of cattle that could be sold and cover costs. In view of the stock available for fattening, the available market for quality stock and KMC's financial position, it is not irrelevant to note that in 1975/76 the Maize Marketing Board (MMB) had returned to the familiar pattern of the 1960s and was losing large sums of money on maize exports; about 30% of the producer price was apparently lost on every bag of maize it exported. (Evidently, no effort was made to determine whether

the combined losses of LMD, KMC and MMB could have been reduced by feeding the maize to cattle.) The wildlife component was going very slowly."

The Review Mission analysed the problems of the individual ranch types.

b. Company ranches (560,767 ha) have been established on previously underutilized land leased from the Government or County Councils in Coast Province by groups of people who purchase shares in a Limited Company with cash or by putting up cattle. The cattle is collectively owned, and in theory there is a limit of 50 members; not all of these necessarily reside and work on the ranch*.

The Mission found most of the 13 ranches facing bankruptcy, principally because of low producer prices at a time of rapidly rising costs, but also because of overstocking, low participant equity (the ranches were being kept afloat by the provision of working capital loans by AFC, so further increasing ranch debts) and a policy of building up a breeding herd rather than relying on fattening steers (with quicker cash returns) in the early years. With KSh.21 millions already committed to these ranches, the whole viability of AFC was at risk.

It was recommended that both finished beef and LMD selling prices be reviewed, that experts devised a new strategy for those ranches, and that further loan disbursements be withheld until the foregoing two recommendations were satisfactorily resolved.

c. Commercial ranches (563,872 ha) were previously exclusively European-owned but many are now owned by groups of up to even 2,000 shareholders on freehold or leasehold land.

The Mission found the auditing of accounts by AFC to be very weak, and, as with the Company ranches, insufficient participant equity and depressed incomes due to low beef prices.

It was recommended that producer prices be raised so as to make the ranches a satisfactory commercial investment, the financial situation of ranches be reviewed and AFC financial monitoring be improved, the ranchers should provide more participant equity capital, and ranch models reflecting the main needs of the different ranching groups requiring loans be developed.

d. Group ranches (1,363,383 ha) are located on former open rangeland. Up to 100 (or even more) families collectively obtain title to the land through an adjudication and registration process; they

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*There are also Co-operative ranches (71,242 ha) which are very similar to Company ranches except that they are controlled by the Ministry of Co-operatives and may utilise Trust Lands.

jointly finance the common facilities but own the livestock individually. The intention is to stabilise the use of lands formerly grazed under nomadic patterns in Kajiado and Narok Districts, the Masai country along the Tanzanian border.

The Mission found the problems of the Group ranches to be extraordinarily complex, and felt it needed much more information on a range of issues including sociological ones. It found these ranches were grossly overstocked and had a poor disbursement record. It recommended a suspension of investments until overstocking problems were resolved and a further Supervision Mission could provide the information required. However, in the short term it was felt that higher beef prices would give a more satisfactory rate of return.

c. Feedlots were established on 12 farms to give rapid finishing (approx 90 days) to livestock on home-grown fodder, there being a total capacity of 50-60,000 head.

The Mission found that since 1974 Feedlots producing for the domestic market were losing money and even closing down because prices (despite a small premium from KMC on Feedlot beef) were inadequate.

The Mission recommended that the occupancy rate of Feedlots should be improved, that experimentation should be continued (including the siting of one new Feedlot outside the disease-free zone), and more adequate producer prices be gazetted.

e. Common to the IBRD's solutions for all the foregoing ranch types was the need to increase beef prices and generally improve management throughout the Project. These solutions provide a good take off point from which to analyse the activities of LMD. First, it would be useful to explain what LMD actually does under the SLDP.

6. The Everyday Functions of LMD

LMD makes the vast bulk of its purchases in the north of Kenya (see Table One); it also does some purchasing in the south of the country (which is cbpp-free) but that is a small element in the total enterprise, so the northern-centred activities will be concentrated upon here.

There are now 33 LMD run cattle markets in the country, the (approx) 20 markets in the north having the largest through-puts. A market consists of a fenced-off area of land with a permanent weighbridge. The private traders and pastoralists bring their animals to sell to LMD and private raisers and butchers. If the latter two buy they pay LMD a fee for its weighbridging services. The selling pastoralist is given a credit note on the spot which is immediately redeemable for cash at the local District Administrator's Office. A mobile LMD buying team goes out to these markets four, maybe more, times each year depending upon the state of the market and known availability of animals. Buyers and sellers generally know of the time well in advance through announcements over the national radio network.

The animals purchased by LMD have ear tags fixed and are then enclosed at the market site. Later they will be divided into those for immediate slaughter and those to be sent elsewhere for fattening.

Those animals destined for slaughter are held on site or in transit for three weeks to ensure that they are free from foot and mouth disease. If found disease free they are then transported to a slaughterhouse near Nairobi; if found to be infected, they are held back until declared fit.

Animals intended for re-sale to ranches for further growth (mostly immatures) are walked or transported to one of four quarantine holding stations (there is a fifth station serving the southern coastal towns where cbpp is not a problem) where they are isolated to test for contagious bovine pleuropneumonia (cbpp), a disease something like TB in humans.

The testing for cbpp is simple but protracted. On arrival the entire herd is given a reactive test for cbpp. The first test is read after eight weeks. If the whole herd is clear it is given another reactive test which is read six weeks later. If this second test shows the whole herd clear, a third reactive test is given, which is read six weeks later. If this third test when read shows the whole herd clear, the animals are then ready for sale to the fattening ranches. The entire herd must undergo three clear tests; LMD must keep the animals quarantined for 20 weeks at the very minimum.

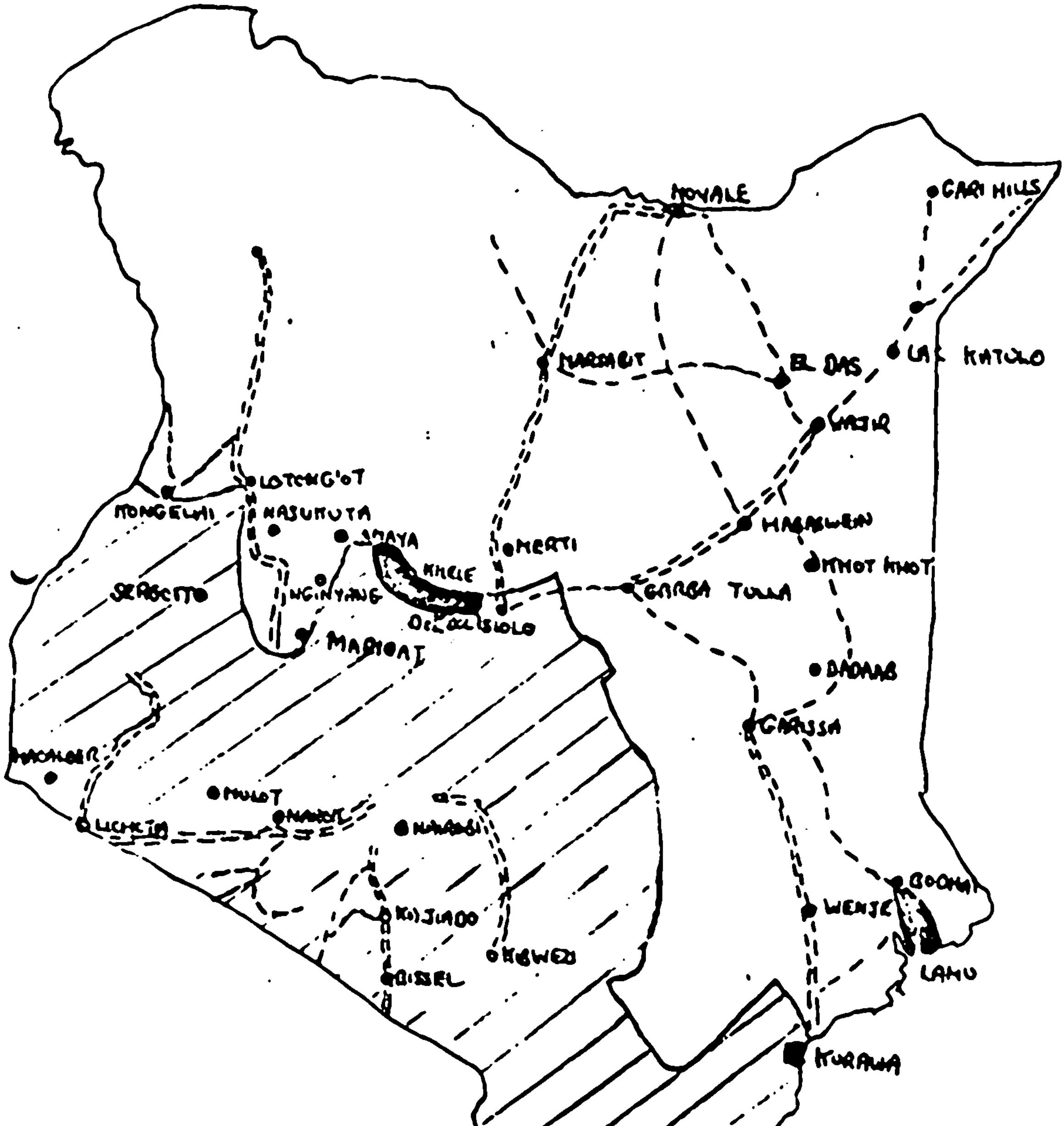
However, the situation described in the last paragraph does not always obtain. If at the reading of the first test even one animal is found to be a cbpp carrier, the whole testing cycle has to be recommenced (the infected animal(s) is slaughtered); there must be a further three clear tests, (read every sixth week for 18 weeks). If, as sometimes occurs, the reading at the 12th week shows an animal to be infected, the whole process must be begun again, ie the remainder of the herd retained for at least another 18 weeks. On occasions LMD has had to hold a herd of several thousand animals for over a year due to cbpp testing.

Once an animal has been declared disease-free, it is sold on a basis of so many shillings per kilo live weight to ranches, feedlots, and farmers which keep the animal until it is sufficiently grown and fattened to be ready for slaughter. However, LMD has had difficulties in selling its cattle stocks at some times in the past.

When it has spare capacity, LMD also contracts to transport animals for the private sector, which may also use LMD's quarantining and grazing facilities on a fee-paying basis.

MAP ONE

LMD'S STOCK ROUTES BUYING CENTRES AND CBPP QUARANTINE AREAS



KEY

==== LMD's main stock routes

---- LMD's stock routes

CBPP disease free zone, as at March 1978.

LMD's CBPP quarantine areas.

Table One. Number of Cattle Purchased by LMD by District 1970/71-1976/77

DISTRICT	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77
Total North	52,068	45,102	53,729	22,835	60,531	1,225	22,349
Wajir	11,574	10,519	4,873	-	15,622	-	3,355
Mandera	24,267	3,414	11,851	-	-	-	414
Laikipia	2,695	1,643	-	494	50	268	3,396
Isiolo	10,370	7,958	21,977	22,341	17,083	-	7,405
Lamu	-	15,716	1,689	-	-	-	-
Samburu	3,093	-	6,811	-	12,442	957	2,719
Marsabit	69	5,852	6,528	-	7,412	-	4,553
Garissa	-	-	-	-	7,922	-	507
Total South	-	330	241	208	1,696	3,321	495
Baringo	-	44	-	-	-	-	-
Elgeyo Markwet	-	144	-	-	76	671	-
West Pokot	-	142	227	-	611	1,365	-
Uasin Gishu	-	-	-	60	-	-	-
Nakuru	-	-	4	148	-	-	-
South Nyanza	-	-	-	-	589	-	-
Machakos	-	-	-	-	-	1,067	-
Narok	-	-	10	-	420	32	-
Kericho	-	-	-	-	-	186	-
Tana River	-	-	-	-	-	-	495
G. Total	52,068	45,432	53,970	23,043	62,227	4,546	22,844

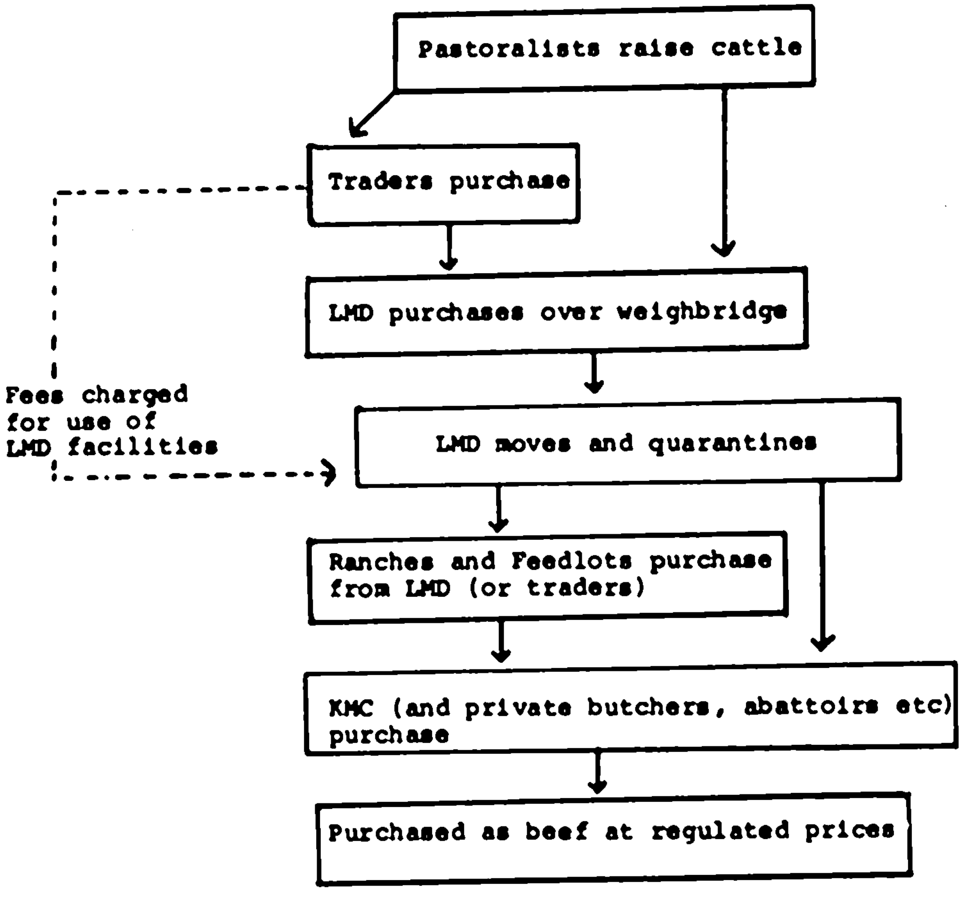
Note: Buying centres are now operational as follows:-

Mandera District - Lak Katulo and Gari Hills
Wajir District - Eldas, Khot Khot, Habaswein and Wajir Town
Garissa District - Dadab, Bodhai and Garissa Town
Tana River District - Wenje and Kurawa
Marsabit District - Moyale and Bodassa
Isiolo District - Merti, Garba Tulla and Isiolo
Laikipia District - Dol Dol
Samburu District - Kilele and Amaya
Baringo District - Nginyang and Marigat
Turkana District - Lotongot
West Pokot District - Nasukuta and Kongelai
South Nyanza District - Macalder and Lichota
Narok District - Mulot, Narosura and Narok Town
Kajiado District - Bissel and Kajiado Town
Machakos District - Kibwezi
Elgeyo Marakwet District - Chebara.

7. LMD in the Livestock Sector

a. Figure One below shows in simplified form the livestock marketing process in Kenya (a solid arrow indicates a sale):

FIGURE ONE



b. The two distinct services of LMD to the livestock sector in the Northern Districts, trading and quarantining, both involve such risks that only a Government organisation could be expected to take them on.

There can be the situation as for example exists at present (1978) where because of good rainfall in the country everybody in the sector, pastoralists, traders, LMD, the ranches, has abundant and good grazing available. Thus whilst their animals are eating well and gaining weight, the pastoralists have no interest in selling them at once but prefer to wait until they achieve the greatest value (see foot of Table Three). Unable to buy, LMD is unable to supply the ranches which would be able to take on large numbers of livestock in these conditions. In this situation LMD loses not only the goodwill of the ranches, but also the vital income from grazing fees or under-utilised cattle transporters.

In the drought conditions of 1974/5 the situation was quite the reverse. LMD in its official capacity as buyer of last resort had to purchase widely from the pastoralists and was left holding some 50,000 animals. It was having to purchase and move animals, many in a rather distressed condition, and then support them on meagre grazing resources; KMC was buying from ranches and the private sector as a priority, and ranches had no desire to re-stock whilst conditions were adverse, thus LMD found itself to a considerable extent being a cushion to both ends of the troubled livestock sector.

c. By its very nature quarantining, LMD's other key service, is extremely risky. As was shown in 6. above, in the best of circumstances for at least five months LMD is unable to sell an animal that usually is making only a very small weight gain if any at all, and this situation is exacerbated if cases of cbpp are repeatedly found. Deaths also take their toll.

d. LMD's problems have been exacerbated by the state of the ranches which successive IBRD reports have described unfavourably: over-stocked, poorly managed, poorly organised, unprofitable, making no calculations on throughput, and so on. Until the end of 1976 when LMD changed its purchasing pattern (see 7.1. below), because of the weak state of the ranches it could not buy animals secure in the knowledge that ranches would be in a position to take them five months later. Thus animals with the potential for improvement were either waiting on LMD's relatively poorer grazing resources, or were disposed of for slaughter.

A look at LMD over the last five financial years gives an insight into its workings and problems.

e. 1972/3 was the first year of extension activity after the FLDP had actually got underway (see 2. above), and LMD was finding it easy to buy at an average purchase price of K£17.06 (see Table Two) as against only K£12.10 (35% less) the previous year. Likewise there was a good demand for animals.

f. 1973/4 was less successful. Although LMD increased its purchase price by an average of 34% over the previous year, an outbreak of foot and mouth disease in the North East meant LMD did little purchasing, whilst two large groups of animals failed the final cbpp tests and so could not be sold at once. The poor financial performance was also partly due to the unusually high mortality losses.

g. 1974/5 was a very difficult year for LMD. In severe drought conditions LMD was persuaded (apparently under some pressure from the Press) to buy widely in the North (see Table One) to help relieve the plight of the pastoralists. The ranches had no grazing available, and KMC, already working at full capacity, was giving priority to animals from the ranches; LMD was left holding some 50,000 cattle.

h. In 1975/6 LMD concentrated on clearing the large holdings of the previous year, purchasing as little as possible. With dry conditions on the ranches, a 9% mortality rate, and a foot and mouth quarantine restriction at Longopito which lasted three months, there was an average monthly inventory on the LMD holding grounds of 42,000, and the year ended with 28,000 animals still being held on grounds far from recovered from the drought.

i. From the beginning of the year 1976/7, LMD made some important changes in its purchasing system. Previously it was buying perhaps 95% of its animals from traders, and it is most probable that they formed an informal cartel to keep prices high. Since LMD bought the animals in mobs, it had considerable difficulties in assessing their liveweight accurately; also at 45%, LMD probably overestimated the killing out percentage (ie weight of saleable meat after slaughter as a proportion of the weight of the animal live).

From December 1976 LMD has bought each animal individually over a weighbridge, so that purchasing weights are no longer overestimated. Attracted now by the prospect of a fairer price, more pastoralists have begun to sell directly to LMD; LMD records from January 1977 show 26% of its purchased animals have come direct from pastoralists. Since December 1976 each animal has been ear tagged at purchase and the following details recorded by computer:

sex
purchase weight
purchase location
sale weight relative to purchase weight
incidence of Cysticercosis
length of stay on holding grounds
beef grade realised at KMC.

From these details LMD has been able to make useful correlations, eg the relationship of the purchase and sale weight of the animal to the time it has been on the holding grounds. LMD has found that the killing out percentage is in fact only 42%, and has adjusted its prices accordingly. Over time LMD should be able to work out just which is the optimum animal to buy, and then encourage the pastoralists to raise and supply these. LMD's improved financial performance, with the cattle trading activities for the first time showing a surplus before the deduction of other expenses, is largely attributable to the better market facilities offered in the northern range areas, some useful earnings from transport contracts with private traders, and the low mortality rate of 3.32%.

Since late 1976 LMD has based its purchase price in the pastoral areas on KMC realisation prices minus all costs; in this way it is covered if the ranches cannot take off animals and they have to go for slaughter. Further, in the light of the IBRD Review Mission's criticisms that it was giving insufficient attention to forward marketing prospects, LMD has tried to buy only on the strength of firm orders from KMC, butchers, the AFC on behalf of ranches, or ranches themselves. Of the 18,790 animals LMD sold in the nine months July 1976 - March 1977, 8,111 went to KMC, 6,519 to other butchers, and only 4,160 to ranches. At first glance it might seem peculiar that LMD which was in part created to provide animals for improvement on ranches

Table Two. Number of cattle handled by the LMD, financial performance, average purchase and sale prices, and mortality as a percentage of cattle bought in a financial year (July 1st - June 30th)

		1972/73	1973/74	1974/75	1975/76	1976/77
a.	Number of Cattle Handled					
	Stock on hand at beginning of the year	16,911	12,089	14,856	50,012	28,133
	Number bought in the year	53,970	23,043	62,227	4,547	22,848
	Number sold in the year	58,518	13,857	19,746	22,426	43,829
	Deaths, less natural increases	274	6,419	7,325	4,000	1,207
	Stock on hand at end of year	12,089	14,856	50,012	28,133	5,943
	Change in Stock on hand	- 4,822	2,767	35,156	- 21,879	- 22,190
	Deaths	1,566	6,375	7,268	3,929	1,891
b.	Financial Performance K£					
1.	Cattle sales during the year	966,798	324,034	441,469	530,603	1,069,458
2.	Cattle purchases during the year	921,075	526,024	1,479,324	94,831	495,506
3.	(1 - 2)	45,723	- 201,990	- 1,037,855	435,772	573,952
4.	Change in opening and closing valuation	- 13,664	123,833	908,612	- 584,955	- 534.599
5.	Cattle trading balance (3 - 4)	- 32,059	- 78,157	- 129,243	- 149,183	39,353
6.	Net operating costs	209,994	174,617	113,376	248,377	192,500
7.	Operating balance (6 - 5)	- 177,933	- 252,774	- 242,619	- 397,560	- 153,147
c.	Average Purchase and Sale Prices K£					
	Average purchase price	17,066	22,828	23,773	20,856	21,669
	Average sale price	16,521	23,384	22,357	23,660	24,401
d.	Mortality as % of Cattle Bought Plus the Average of Cattle on Hand at the beginning and End of the Year	2.29	17.46	7.68	9.01	3.32
e.	Deficit or Surplus per Head of Cattle Sold					
	Cattle trading balance	0.55	- 5.64	- 6.54	- 6.65	0.898
	Net operating costs	- 3.59	- 12.60	- 5.74	- 11.075	- 4.392
	Operating balance	- 3.04	- 18.24	- 12.29	- 17.73	- 3.494

Table Three. LMD Cattle purchases and sales per month 1969/70-1977/78

a. Purchases, 1969/70-1976/77

Month	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77
July	29	36,829	1,025	14,148	-	-	-	-
August		20	-	1,990	-	-	-	-
September	586	-	9,573	17,393	-	-	465	-
October	2,590	-	272	123	-	-	1,013	-
November	-	5,414	9,834	-	60	7,412	628	-
December	1,283	-	196	-	368	-	1,691	2,023
January	20,848	-	15	-	22,341	28,064	-	9,902
February	-	-	14,168	20,208	-	-	750	7,577
March	-	9,825	8,624	108	274	17,083	-	28
April	-	-	-	-	-	-	-	-
May	-	-	1,725	-	-	-	-	696
June	-	-	-	-	-	9,668	-	2,620
TOTAL	25,336	52,088	45,432	53,970	23,043	62,227	4,547	22,846

b. Sales, 1969/70-1976/77

Month	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77
July	349	37	283	393	195	104	353	1,075
August	2,636	15	3,043	1,934	5	1,212	68	813
September	1,618	143	76	8,321	122	72	1,944	1,453
October	2,800	2,322	7,264	6,464	3,133	279	1,603	2,984
November	2,720	2,206	2,338	639	42	4,386	3,705	2,181
December	3,600	1,508	5,334	238	109	4,196	3,118	58
January	1,705	344	3,666	6,193	3	153	1,039	615
February	4,708	4,171	799	5,415	59	1,147	3,816	1,774
March	3,644	2,210	3,267	4,984	471	1,040	500	7,877
April	3,356	1,738	3,975	1,066	445	29	950	10,185
May	1,557	4,437	7,862	7,915	4,579	834	2,526	5,975
June	6,013	10,264	8,456	15,083	4,674	6,289	2,907	8,704
TOTAL	34,706	29,395	46,363	58,645	13,837	19,741	22,529	43,664

c. Purchases and Sales, 1977/78

	Purchases	Sales (Provisional)
July	49	1,803
August	762	376
September	-	283
October	-	2,775
November	-	599
December	-	671

At the end of 1977, there were 247 cattle left on the LMD's holding grounds.

was sending more than three-quarters of its sale for slaughter. However, at the beginning of the financial year the ranches generally unsure of their own trading positions and operating in still somewhat adverse climatic conditions, had failed to indicate any intentions to purchase cattle to LMD. In November 1976 with the coming of abundant rains, the ranches suddenly made large demands for animals, which should have been ordered at least five months before (ie June) or even earlier, and as can be seen from Table Three, LMD had been doing no buying during this period. Having run their stocks low the ranches were now unable to supply KMC, which turned to LMD to help it maintain its throughput. However, by then the situation described at 7.b. above was coming to obtain, and in the favourable grazing conditions LMD was unable to procure from the pastoralists at the prices offered.

8. The 1976 Review Mission on LMD and After

a. The Mission scrutinised all the components of the SLDP. Whilst it found LMD's development programme to be on schedule (but with greatly increased capital costs; see 10 below), it criticized LMD for paying too much for animals initially and thus in turn demanding too high a price from the ranches, so depressing their demand for fattening steers. It also felt that LMD allowed too high an average mortality, and that it was squeezing the private sector out of cattle trading.

The Mission made several recommendations. It advised that LMD should "..... normally operate at a profit and any diversion from such policy should be justified ......"; thus LMD was being required to become a commercial proposition - "..... Government should consider and establish the rate of return which LMD should be required to return on its investments ....." - whereas the British letter of intent to Kenya (22.8.74) had required only that "LMD shall charge fees which ensure financial viability".

On the matter of prices, it felt that LMD had to reduce the prices it paid for immatures in order to be able to sell to KMC and ranches at prices that would allow these latter to make a profit;

> "LMD's proposal that they should try a margin of 50 cents per kg liveweight between purchase and sales price to cover operating costs is supported. In practical terms this would mean reducing the price of 210 kg LW commercial grade animal in the North East from the present price of KShs.400 to 440/- to about KSh.300/- which would then allow it to be sold profitably to the KMC at the commercial grade price of KSh.1/91 per kg LW. This may have serious political problems but one way or the other the present situation should be rationalized. Large numbers of stock must be moved from the North East if present developments are to be justified and this can only be done if they are offered to the purchasers (ranches and KMC) at prices that they can turn a profit. This means, at present, either lower prices to the producer of immatures or a subsidy to LMD; the latter course immediately eliminates the private trader and indirectly means a subsidy to exports either as corned beef or fattened animals."

Another recommendation was that LMD should concentrate less on marketing activities and more on activities servicing the industry generally;

> "LMD should continue sales and purchasing activity only in the absence of private trading activity and it should be prepared in the medium term to concentrate on providing facilities to traders for quarantine, marketing, movement on stock routes and transport and only acting as a buyer of last resort by providing a floor price based on realization price at KMC.
>
> Consideration should be given to providing a quarantine service to the private traders in the north and in the south at a more subsidized charge in order to give them sufficient incentive to accept the considerable uncertainty which they incur in quarantining their own animals as they are unsure how long the process will take."

Pending the Government enquiring into and setting LMD's desired rate of return the Mission suggested

> "..... that apart from the weighbridges and any other critical investments there should be a pause in the investment program and in any increase in recurrent activities. This will enable the investment program to be revised and rephased if necessary to take account of the revisions."

b. These findings of the Review Mission provoked criticism from many quarters. As was indicated at 5.a. above, the suggested pricing policy was slanted heavily in favour of helping out the ranches seemingly without proper regard to the needs and possibilities elsewhere in the livestock sector. Certainly LMD and probably some sections within ODM felt that the Mission had made inconsistent and conflicting recommendations.

Overall LMD was being required to operate at a profit and show a measurable rate of return. Yet it was to:

act only as a buyer of last resort, ie start to trade only in conditions so unfavourable that the private sector had withdrawn;

buy animals at only three-quarters of then current prices which according to newspaper articles at the time were already thought of by the pastoralists as being inadequate;

sell these animals cheaply to the ranches (and yet make a profit from them);

subsidise and service its private trader competitors;

achieve the foregoing whilst a brake had been put on further expansion.

In sum, the elements of the recommendation conflicted with its expressed overall goal that one way or another the situation should be rationalised. Further LMD could never put a bottom price in the market and trade at a profit, because if they were profitable traders would buy on these terms as well, and, having a more efficient operation could undercut LMD, and LMD would be left holding the surplus cattle. In these circumstances, since LMD was not an intervention authority with a facility for storing the animals dead or alive, a trading loss on the surplus cattle would be inevitable.

c. The Supervision Mission of May-June 1977 considered the relationship between the periods of procurement of steers from the pastoral areas and the periods the ranches are best placed (in terms of available grazing) to receive them. It noted that August-September and January-February were the periods when pastoralists were most willing to sell to LMD (see also Table Three). In one sense January-February procurement is better for LMD in that it permits better holding ground performance which should enable LMD to cover its costs on the holding grounds without increasing its sale price per kg substantially; but the coastal ranches, for example, in 1977 had their best feed available between March and July so that a June or July delivery would mean a poorer performance of the animals on the ranches. Contrariwise August-September procurement would normally involve a weight loss on LMD's holding grounds but gives the ranches the opportunity for a quick turnoff of steers assuring their conditions to be favourable.

The Mission saw three possible routes to level out these varying conditions. First, LMD should charge more for December-February delivery than May-July delivery if it were to cover costs and pay a constant price to pastoralists the year round. Second, LMD could pay less to the pastoralists around August time, but this would conflict with the principle of paying KMC realisation price minus costs (and perhaps make procurement more difficult). Third, LMD could arrive at an average price for all LMD immature sales taking into account the poorer performance on holding grounds following August procurement and the better performance following January procurement. The Mission exhibited no firm preference for any of these, but rather advised that from the new accurate LMD recording system a model of movement, performance and costs be developed to permit the necessary judgements to be made.

The Mission considered the earlier Review Mission recommendation that LMD should normally operate at a profit and advised instead that "... LMD should operate so as to cover its acts under normal operating conditions and should function as a Government service institution ...". It felt that if LMD incurred a loss in fulfilling its role as a Government service institution there was a strong case for Treasury assistance. Such loss circumstances could include:

the operations of the transport fleet which performed useful services to the country but could not operate fully enough throughout the year to ensure commercial viability;

the purchasing of animals in the pastoral areas in severe drought conditions at an unprofitable price dictated by the Government;

the occurrence of drought on ranches which would prevent them from taking up cattle ordered previously which LMD would then be forced to sell for slaughter at a loss.

The Mission recommended that LMD adopt more of an approach of "ranch management" rather than "holding animals for four or five months", ie that it absolutely maximise the use of potential grazing during quarantining, and that the development of the holding grounds suspended after the 1976 Review Mission should now proceed ".... in association with the development of an immature supply and pricing policy which reflects a coordinated approach by all parties concerned to the issues involved".

d. The Supervision Mission of January-February 1978 found that LMD's development was keeping pace with the rest of the project, and generally reported favourably. It supported the view of the preceding Mission that LMD should cover its costs under normal operating conditions rather than having normally to operate at a profit, and agreed with the view that the costs of quarantining should be subsidised by the Central Government rather than (as at present) counted for the purpose of cost recovery in LMD's operations. Since the benefits of quarantining accrue not to the animals undergoing it but to the healthy animals of high potential area producers elsewhere in the livestock sector and ultimately the economy as a whole, it seems unreasonable to ask the primary producer and the purchaser to pay the costs of an operation whose benefits do not accrue primarily or directly to them.

The Mission felt that the previous suggestion that LMD should ask a higher price for cattle sold for December-February delivery than for May-July delivery was too complicated to manage in practice. Instead it recommended that LMD should be required to make an 8% return on marketing costs (assuming quarantining to be subsidised) and the LMD management be left to decide how best to achieve this. However, LMD was advised to consider basing its buying price policy on AFC realisation price minus costs instead of the present KMC realisation price minus costs. The advantage would be that pastoralist producers could be offered higher prices so making it easier for LMD to procure immatures for the ranches promptly against orders; but against that during the quarantine period the forage situation on the ranches could change drastically for the worse, and LMD would be forced to sell off the stock to KMC at a loss. The Mission therefore suggested that a compromise be reached and that a greater flexibility be allowed to LMD's buyers. Initially in attempting to fill AFC orders "KMC realisation" price should be offered, but if there are insufficient takers a higher price up to a maximum of "AFC realisation" price could be offered, the exact limit to be fixed by LMD management in the light of its set return on marketing costs. It also cautioned against quarantining for the private sector being wholly subsidised for otherwise LMD's holding grounds could be used just for cheap pasturing. At present private owners pay about two-thirds the true quarantining cost, and this level was felt to be about right in that it discouraged the use of the grounds for subsidised grazing but acknowledged the principle that there are national benefits from quarantine.

e. The May-June 1977 Supervision Mission advised that the accounts of LMD's transport operations be kept separately, and the January-February Supervision Mission noted that although the transport account showed a loss, LMD had not made a special case to the Treasury for financial assistance. The transport has been financed by ODM (see 10. below), and so is of particular interest. The main benefit of cattle transporters is that the marketing seasons can be extended beyond the times when there are adequate water and grazing to allow the animals to be moved along the stock routes on foot. The transport is also used for transporting famine relief supplies and also for transporting cattle for private ranches on a fee basis. The fleet will also be of strategic value if the Government of Kenya undertakes a destocking programme in the pastoral areas in times of severe drought when stock routes would not be serviceable.

The losses on transporting, always a risky venture in physical conditions such as those prevailing in Kenya, have been exacerbated by the stop-go cycle of LMD activities in recent years. Also maintenance has been a considerable problem. Skilled mechanics have been attracted to the private sector; the two LMD workshops at Nairobi and near Isiolo are not equipped for all major repairs, and the Ministry of Works workshops have a large backlog of major repairs. LMD transport officers can only authorise costs up to KSh.3,000, and repairs over KSh.2,000 have to be submitted to the Central Tender Board which can further delay action. There have been occasions when main dealers have refused to supply spare parts because of long delays in settling previous bills.

The construction of a temporary LMD workshop at Kajiado is now in hand which should ease maintenance problems somewhat. Following the 1976 Review Mission there was a "saving" out of the 1973 ODM loan, largely due to the abandonment of the surface water programme originally envisaged, and LMD hopes to use this towards (amongst other things) more tractor units and other vehicles which should improve its transport operation.

9. <u>The Problem of Prices</u>

a. The issue of meat prices in Kenya is an extremely complex and sensitive one. It has been touched upon several times in this Study, and the IBRD and other parties feel that more than any other single element, the existence of a favourable pricing structure is vital for the beef industry in general and the producer ranches in particular to prosper.

Not being an economist, the present author has had some difficulty in unravelling all the issues and their implications. Further, from the available resources it has not been possible to assemble all the necessary data, *eg* tables relating LMD's buying prices to KMC's producer and wholesale prices over time. There have also been problems with the presentation of the available data, *eg* some tables show the liveweight price per kilo and others the CDW price per kilo, without indicating the conversion factor necessary to work out the one from the other. Since November 1977 LMD has had the considerable benefit of a full-time economist, and the necessary date on price movements etc will increasingly be compiled and become available. This section therefore, has been written with the intention of giving a broad summary of the general position on price issues.

b. Underlying the Government of Kenya's regulations on the wholesale and retail prices of meat is a political decision to keep the price of beef low for the urban consumer. This is well-illustrated by the gazetted KMC maximum wholesale prices of February 1978:

choice forequarter beef - KShs.8.50 per kilo
choice hindquarter beef - KShs.12.20 per kilo
lamb, mutton, or goat - KShs.15.00 per kilo.

In other words, prime beef is sold considerably cheaper than goats' meat.

In early 1974 the IBRD when negotiating with the Government of Kenya over the SLDP queried the then existing price restrictions (echoing similar thoughts in ODM). The Kenyans assured the IBRD that these were purely temporary controls due to unusual local factors, and that they would be lifted as soon as things righted themselves, probably about eighteen months hence. In fact price controls have never been removed and there has been an almost continous exchange on the question between the Government of Kenya and the IBRD, the former trying to hold prices down, the latter urging that they be increased. Events came to a head in August 1977 when the IBRD notified the Government that it was making no further disbursements to the SLDP until the beef pricing policy was substantially revised. At the end of November the Government passed its new pricing proposals to the IBRD, which were accepted, with some reservations, around the new year. These new prices were gazetted in February 1978 so it is too early to be able to assess their impact.

c. Figure Two below, taken from the Chemonix Report (see Appendix Two) illustrates how price changes ripple right through the livestock sector Unfortunately, because of the general stop-go pattern of the livestock sector recently, and the absence of complete data, it has not been possible to compile a similar Table with actual figures for this Study (although such an exercise should be possible in future from LMD's new data resources).

d. Elsewhere Chemonix shows how the pricing structure has left margins hopelessly squeezed, particularly for LMD and the ranches. In late 1976 KMC realisation prices at Mombassa and Athi River (near Nairobi) were respectively:

Sh.4.55 per kg CDW: @ 47.5% kill out = Sh.2.16 per kg liveweight
Sh.4.16 " " " " " " " = Sh.1.98 " " "

At this time LMD's liveweight selling prices to ranches and feedlots were:

Up to 200 kg: - Sh.2.40 per kg
200-225 kg: - Sh.2.40 per kg
over 225 kg: - Sh.2.65 per kg.

FIGURE TWO

LIVESTOCK AND MEAT PRICES :
PARTIES AND PRICES WHICH AFFECT THEM

Party	Prices which affect	Risk if inadeqate	Current Status (March 1977)
Primary Producers			
1. Pastoralist - NE	Immatures - LMD buying (KMC Realization)	Will not sell except in crisis	Prices adequate.
	Old range fed (KMC Realization)	"	"
2. Pastoralist - Southern	Various, KMC producer	Will sell less. Probably small impact.	Prices probably adequate.
3. Breeding Ranch	Immatures - Feedlot buying.	Will keep on ranch.	Prices low
	Matures - KMC and others.	Will lose money and fail. Could mean serious output loss.	
4. High Potential	Immatures - Feedlot buying.	Will keep.	Prices low.
	Matures - Mostly non-KMC.	Will switch to other activities. Could mean very serious output loss.	Prices very low.
Middlemen			
1. Traders	Set own buying prices - compete with LMD. Selling prices: KMC, ranches, other processors.	If margins too low, may withdraw from business.	Probably adequate.

Party	Prices which affect	Risk if inadequate	Current Status (March 1977)
2. LMD	Set prices, buying or selling.	If producer pric• too low, could lose throughput. If ranch price too high, unable to sell. If margins too narrow, lose excessive amounts.	Probably adequate, but margins could be wider Ranch prices perhaps too high.
Fatteners			
1. Ranches	LMD ranch prices KMC purchase prices (Standard, FAQ)	If margins too narrow, may fail. Could mean serious check in supply increase from this source.	Margins low.
2. Feedlots	LMD immature prices. Ranch immature prices. Backgrounder prices. KMC producer prices, FAQ and Choice. Feed and input prices.	If margins too narrow relative to feed costs, reduce or close down. Result would be serious loss of Choice and FAQ.	Margins adequate for operations, to FAQ. Inadequate for Choice or new investment.
Processors			
1. KMC	Producer prices wholesale and ultimately retail prices. Export prices.	Low producer prices make KMC uncompetitive buyer, reduce throughput. Low margins cause losses, weaken KMC in market.	Producer prices low, especially Choice and Standard. Some grade margins low.
2. Private abattoirs	Same as KMC, but no control and generally no export.	Costs so low no problem.	Prices adequate.

Party	Prices which affect	Risk if inadequate	Current Status (March 1977)
Consumers			
1. Tourists	Wholesale and retail prices, FAQ and Choice.	Tourist very little price elasticity of demand, but hotels and restaurants considerable.	Prices low.
2. High income urban	Retail price, FAQ.	Considerable price elasticity, estimated at -1.2. If prices rise, consumption should drop.	Prices low.
3. Low income urban	Retail price, Standard.		
4. Rural	Retail price, Standard and Commercial.	High price elasticity probable (use -1.3.) but little evidence.	Prices low.

and LMD was charging the lowest possible prices it could. If one takes the price for an animal of 225 kg and above, Sh.2.65 per kg liveweight at 47.5% kill out equals Sh.5.58 per kg CDW, ie 15% above the price then being paid for standard grade by KMC.

While established ranches usually had no difficulty in both achieving weight gains and taking animals through to quality grades, thus covering their costs and showing a profit, the newer enterprises, less efficient, did not so readily achieve higher grades and not unusually found themselves struggling to be viable on weight gains alone, having started with a 15% disadvantage. Thus the review mission had wanted LMD to sell to the ranches much cheaper, in order to allow the ranches a much safer margin.

e. Chemonix goes on to show that the real financial position of ranches has in fact been declining. In real terms KMC realisation prices have been decreasing. Measured in constant December 1972 shillings:

	Jan 73	Dec 76	Decline in real price
Choice	4.65	4.35	6.5%
FAQ	4.40	4.29	2.5%
Standard	3.40	2.98	12.4%
Commercial	2.95	2.61	11.5%
Manufacturing	1.58	1.50	4.9%

Note that the decline has been sharpest in the grades most commonly produced by the ranches, Standard and Commercial. Over this same period, ranch costs increased 100%.

From an analysis of the prices KMC had been paying the producers, Chemonix felt that there was too great a differential between the Choice and FAQ grade prices and the lower ones which ranches mostly produced for ranches to operate at sufficient margins:

KMC Producer Prices (KSh. per kg CDW)

	72	1/73	7/73	1/74	2/75	4/75	6/76	12/76
Choice	4.45	4.65	4.87	5.30	5.85	6.15	7.10	7.60
FAQ	4.20	4.40	4.61	5.00	5.50	5.80	7.00	7.50
Standard	3.15	3.40	3.67	4.20	4.85	4.85	4.85	5.35
Commercial	2.80	2.95	3.19	3.60	4.25	4.25	4.25	4.75
Manufacturing	1.50	1.58	2.20	2.20	2.20	-	2.45	2.95
(Current bonus for FAQ and above to feedlots = Sh.0.50 per kg)								
	Price Differentials (Standard = 100)							
Choice	141	137	133	126	120	127	146	142
FAQ	133	129	126	119	113	120	144	140
Standard	100	100	100	100	100	100	100	100
Commercial	89	87	87	86	88	88	88	89
Manufacturing	48	46	60	52	45	-	51	53

Chemonix also observed that retail prices had declined sharply in real terms between December 1971 and September 1976, bone-in prices falling by 25.5% and sirloin prices by 25.7%. It noted that because the margins on the better grades were so small it was possible that butchers would not be interested in handling them, to the detriment of the better ranches and the feedlots:

Retailers' Margins

Item	KMC Wholesale price	Regulated Retail price	Margin	
			Sh.	per cent
Choice hindquarter	10.15	10.50	0.35	3.4
" fore "	8.45	8.35	-0.10	-
FAQ hind "	9.90	10.50	0.60	6.1
" fore "	6.10	8.35	2.25	36.9
Standard hindquarter	6.30	10.50	4.20	66.7
" fore "	5.60	8.35	2.65	46.5

f. Overall Chemonix concluded that producer prices were too low to to make many of the new ranches with high capital costs and relatively weak management viable. For the older ranches (producing mainly FAQ) existing prices, whilst adequate to allow them to continue operations, were inadequate to encourage new investment.

g. It is anticipated that the prices gazetted in February 1978 (see 9.b. above) with a considerable increase for the standard grade will go a considerable way towards helping the ranches:

Latest KMC Producer Prices (KSh. per kg CDW)

Grade	1972	1976	1978	Change over 1972 %	Change over 1976 %
Prime	4.70	7.70	8.50	81	10
Choice	4.45	7.60	8.40	89	10
FAQ	4.20	7.50	8.25	97	10
Standard	3.15	5.35	6.95	121	30
Commercial	2.80	4.75	5.45	95	15
Manufacturing	1.50	2.95	2.95	97	-

Also few LMD animals produce meat above the standard grade, so LMD should feel some benefit from the latest increase, although it would perhaps have appreciated a little more for the commercial grade.

KMC takes about one quarter of all the animals slaughtered in Kenya, the rest being slaughtered privately by butchers or at private sector slaughterhouses such as that at Dagoretti north of Nairobi. KMC has slaughtered the following number of beef cattle in recent years:

1970	196,634	1974	159,514
1971	209,853	1975	133,900
1972	198,085	1976	228,424
1973	(annual report not available)		

10. ODM and the SLDP

a. The ODM files prior to 1973 were not readily available for examination. Those from 1973 onwards were scanned and there appeared to be nothing beyond the ordinary calling for particular comment.

b. Before the commencement of the SLDP ODM granted £288,000, later increased to £388,000 towards the procurement of weighbridges, other buying centre facilities, and transport. As can be seen in Tables Four and Five, costs against this (1970) Loan have increased considerably more than just the extra £100,000 allocated. It can be seen that the actual cost of purchasing the vehicles and equipment agreed under the Loan has increased by more than £130,000 over the original estimates.

c. Table Six shows that by the end of 1977 £444,000 of the £1.15 million 1973 Loan had been spent, with a further £295,000 firmly committed or necessary for developments not abandoned after the 1976 Review Mission. Thus there remains £410,000 unspent as a result of the Review Mission's recommendations (see 8.c. above). With the abandonment of the surface water development programme, LMD has tried to use US funded water supplies on the stock routes. It has found things more difficult in its holding grounds; for example at Longopito the cattle now have good grazing but a very long walk to the river for watering. LMD will soon be applying to ODM through the appropriate channels for this £410,000 to be reallocated to other items, notably weighbridges and more tractors (changed marketing patterns having made the use of two trailers behind tractors less common) to strengthen its marketing activities.

d. It is worth noting that the allocation from the 1973 Loan to the SLDP was only agreed to after some considerable reflection in ODM. In March 1973 it had to be decided just what elements ODM would support. There was a feeling against any involvement in ranch development and the proposed abattoir (never in fact built). By May ODM had made it clear to the IBRD that it would prefer to pick up one distinct element rather than engage in any joint funding, and in June gave a definite "no" to any involvement with ranch development. Also in June the Projects Committee approved of the livestock marketing project in principle pending a fuller appraisal by the Development Division in Nairobi (this appraisal when it was made came out very similarly to the IBRD appraisal).

From September to the following March (1974) ODM plied both the IBRD and the Development Division in Nairobi with questions and queries. These included the issue of price controls possibly inhibiting development in the livestock sector on which ODM was assured that these

TABLE FOUR

PROJECTED AND ACTUAL EXPENDITURE UNDER 1970 UK/KENYA LOAN £388,000

INVESTMENT PROJECTED JANUARY 1976 — PROGRESS OF INVESTMENT TO 31 DECEMBER 1977

	No	Unit C K£	Total C K£	Sterling Equivalent	No	Unit C K£	Total K£	Sterling Equivalent/ Original Price in Sterling
MARKETING FACILITIES								
Sales Yards	20	500	10,000	11,940	25	500	12,500	14,925
Loading Ramps	20	200	4,000	4,776	6	200	1,200	1,433
Weighbridge (a) purchase	33	2,000	66,000	78,806	33	1,538		60,604
(b) Installation		1,117	36,850	44,000	29	642	18,625	22,239
Sub Total				139,522				99,201
VEHICLES EQUIPMENT								
Cattle trains (Hippos)	5	19,590	97,950	116,956	5	11,412		68,133
Cattle trucks (Clydesdales)	10	9,335	95,350	113,862	10	6,421		76,669
+ 2 York trailers each	20				20	5,023		119,940
6 Land Rover Pick-Ups								16,587
2 " " Wagons	12	2,421	29,050	34,687	10	2,430		6,548
2 " " Vans								5,876
Workshop equipments	3	1,700	5,100	6,090	2	4,841		11,536
Sub Total				271,595				305,289
HOUSING/BUILDING								
Senior housing	5	6,000	30,000	38,820	1	16,000	16,000	19,105
Junior housing	24	2,000	48,000	57,314	6	3,000	18,000	21,492
Store/Office	20	1,500	30,000	35,820				
Sub Total				128,954				40,597
GRAND TOTAL				540,071				445,087
							Vehicle Spares	6,350
								451,437

TABLE FIVE

TOTAL EXPENDITURE UNDER UK/KENYA 1970 LOAN, MARKET AND TRANSPORT DEVELOPMENT

A. STERLING EXPENDITURE

Imports via Crown Agents - £st cif Mombasa.

	£ STERLING
MARKETING FACILITIES	
33 Weighbridges	60,604
VEHICLES AND EQUIPMENT	
5 Hippos	68,133
10 Clydesdales	76,669
20 York trailers, 20 couplings, 5 dollies	66,755
6 Land Rover Pick-Ups	16,587
2 Land Rover Station Wagons	6,548
2 Land Rover Vans	5,876
Vehicle Spares	6,350
Workshop equipment	11,536
Total sterling expenditure	319,058

A further £14,600 has been spent on spares under 1973 loan for vehicles purchased under 1970 loan.

B. LOCAL COSTS	K£	£ STERLING
MARKETING FACILITIES		
Installation of 29 Weighbridges	18,625	22,239
25 Sales Yards	12,500	14,925
6 Loading Ramps	1,200	1,433
VEHICLES AND EQUIPMENT		
HOUSING		
1 Senior House at Longopito	16,000	19,104
6 Junior Houses at Kirimun	18,000	21,493
Total local cost expenditure		132,379

Total Expenditure under 1970 loan at end 1977, £St.451,437.

TABLE SIX

EXPENDITURE UNDER UK/KENYA 1973 LOAN, STOCK ROUTE AND HOLDING GROUND DEVELOPMENT

A. STERLING EXPENDITURE

INFRASTRUCTURE AND WATER DEVELOPMENT	£St.
Piping	71,289
Pumps for boreholes (3)	7,459
Steel water tanks (3)	13,594
Water tankers (16)	21,783
Generator Sets (10) - plus 2 spare engines	15,799
	129,924
VEHICLES AND PLANT	
Landrovers (25)	65,930
M/P tractors (10)	39,970
M/P trailers (10)	13,376
Grader (1)	32,892
Bulldozer (1)	17,162 fob
Bedford lorries (5)	28,186
Vehicle Spares	14,600*
Gun (20)	1,322
	213,372
Total Sterling Expenditure	345,572

(*For Hippos and Clydesdales financed under 1970 UK/Kenya loan)

B. LOCAL EXPENDITURE

INFRASTRUCTURE AND WATER DEVELOPMENT

	K£	£St.
Drilling + new borehole + unsuccessful attempt to recover 2 existing holes	36,000	42,985
Payments to contractors for work undertaken to equip boreholes	25,250	30,149
Concrete tanks (5)	7,100	13,477
Troughs	1,600	1,910
	69,950	88,521

TABLE SIX (Cont'd)

		K£	£St
	HOLDING GROUND FACILITIES	K£	£St
	Spray race (12)	11,032	13,173
	Installation (12)	600	716
	Engine and Pumps	1,950	2,328
	Access road, at Bombing range	750	895
		14,332	17,113
		84,282	109,635
C.	TOTAL EXPENDITURE under 1973 loan at end 1977		444,007
D.	SUMMARY EXPENDITURE PAST AND FUTURE	K£	£St
	1. Expenditure to-date		444,007
	2. On order and work to be completed shortly		
	10 miles piping		35,000
	1 pump (Lac Katolo)		10,000
	2 generators		2,800
	Payments to contractors on boreholes	40,000	47,761
	Drilling - completion Kibiko borehole	4,000	4,776
	Sub Total		100,337
	3. Future expenditure		
	10-15 concrete water tanks	15,000	17,910
	10 water troughs	2,000	2,383
	6 pumps		60,000
	Drilling 2 new holes	12,000	14,328
	Piping (30 miles)		100,000
	Sub Total		194,626
	TOTAL		738,970

Savings £410,000

were only temporary (see 10.b. above). Some wording in the Agreement that ODM found unacceptable would, the IBRD confirmed, be revised in the new round of discussions that the IBRD had felt it necessary to hold with the Kenyan Government, which would mean a delay in the start of the SLDP. There was a most considerable correspondence on the ecological effects of the proposed project; there was a feeling in ODM that perhaps the good intentions of relieving overstocking in the pastoralist areas would be more than negated by overgrazing on the new ranches of around the new water points. Of course there would be no absolute answer to this question, but by the time of the preparation of the final Projects Committee submission in March it was broadly accepted that the British component would reduce rather than increase these ecological dangers.

In June 1974 both the IBRD and ODM gave final approval for the project, and the Government of Kenya received the British Letter of Intent in August.

e. The procurement for LMD of the ODM funded transport proved to be a most protracted affair. Indents were not forthcoming as early as ODM and the Crown Agents had hoped. In September ODM was advised that there would now be a further indenting delay. As a way of expediting delivery the Kenyans then asked whether it would be possible to accept some British Leyland tractors en route to Kenya in knocked down (ie component) form, but in October this was refused and LMD indicated its intention to order UK assembled vehicles. In December the Crown Agents had still received no indents and in January British Leyland wrote to ODM querying the absence of an order from the Crown Agents.

At last in the third week of February 1974, 5 Hippo Cattle trains and 10 Clydesdale tractor units were ordered, and after the personal intervention of Lord Stokes were promised for delivery in late September. In April British Leyland advised that there would be manufacturing delays and Crown Agents asked whether other available vehicles not covered by ODM's normal disbursement rules could be diverted, to which ODM responded negatively in May. In early October Crown Agents advised the Government of Kenya that the original costs of the transport would now be exceeded; in late November ODM agreed to increase the allocation to cover the price rises.

The Clydesdales were eventually shipped in May and the Hippos in July 1975, ie 14 and 17 months respectively after ordering, too late for LMD to use during the critical drought period. Had it had the transport earlier LMD estimates it could have saved the wastage of perhaps 3,000 cattle.

An odd twist to this affair is that during the familiarisation visit to Kenya the present author was shown ODM funded Hippos of the Land and Farm Management Division (Soil Conservation Project) which apparently were purchased "off-the-shelf" in Nairobi, the concession earlier refused by ODM to LMD.

11. Conclusions

a. LMD has been performing a useful role both within the livestock sector and to Kenya as a whole. It is reducing the number of animals that would otherwise stay in the sparser pastoral holding areas, a facility particularly important in periods of severe drought. By buying in competition with private traders, LMD has increased the prices received by pastoralists for their animals. Through its innovative buying programme, LMD has also to some extent been able to extend the marketing periods. Although it has not yet been subjected to careful economic analysis, it is probably quite safe to say that the LMD quarantining is cheaper than the value of the stock losses that would otherwise occur in the high quality areas. By reducing the costs of animal production the quarantining has the effect of helping to maintain ranchers incomes, and making the national meat supply and quality situation better than it otherwise would be.

b. In recent years LMD has had to operate within all sorts of unusual and difficult constraining conditions, few of them of its own making. There have been great climatic vagueries, from the extreme drought of 1974/5 when it had to buy tens of thousands of animals it had no prospect of selling, to the abundant rains of this year (1978) in which pastoralists are in no hurry to sell their stock. LMD's trading operations have been hampered by a restrictive Government beef pricing policy; further, LMD has been expected to cushion the pastoralist primary producers and the rancher secondary producers from the financial effects of that policy.

c. It now looks as if LMD is about to turn the corner and become a viable operation, particularly if one of the great drains on its financial resources, its subsidy of quarantining, is removed. The Government of Kenya is now under the heaviest IBRD pressure to put its house in order; to date there has not really been a coherent policy for all the elements that make up the livestock sector. In the words of the 1977 Supervision Mission, the Government now has to develop "... an immature supply and pricing policy which reflects a co-ordinated approach by all parties concerned to the issues involved"; LMD can only benefit from operating within a coherent framework. It is clear that the ranches, perhaps the most disorganised link in the livestock chain, cannot be saved just by tinkering with their buying-in and selling-out prices but only by becoming efficient units. Their problems date back to the FLDP, and these now have to be solved rather than spread around the whole livestock sector.

d. There is no evidence that the activities of the LMD have aggravated the ecology of rural Kenya, indeed quite the reverse if anything. There were some early mistakes elsewhere in the SLDP, eg the placing of water holes in the North East grazing grounds too close together, but these are now being rectified from experience. Only when the impacts of the First and Second projects have levelled out in some years time can a proper judgement on the ecology be made.

e. There are many pieces of information that would be invaluable for an evaluation study that do not exist at present. These gaps will increasingly be closed, particularly by analysis of LMD's computerised records and the researches of the LMD economist on matters such as the value of LMD's quarantining activities. Other information is more difficult to obtain - for example, without knowing the total cattle numbers in the pastoralist areas LMD cannot assess the percentage of animals it is taking off. Likewise it has been difficult to discover the prices private traders have been paying to pastoralists. Nonetheless, more will come to be known about matters such as these.

There are several interesting new developments currently, the effects of which will take some time to work through. It will, for example, be interesting to see whether the February 1978 prices will be attractive enough for the pastoralists to sell, and high enough for the ranches to improve their trading margins. In drought conditions cattle go short not only of water but also vital mineral supplements; in the next severe year LMD will experiment with feeding the cattle it is holding specially produced mineral blocks to see how far mortality can be reduced.

APPENDIX ONE

ITINERARY OF FAMILIARISATION VISIT TO KENYA

1978		
April 24	-	Arrive Nairobi, 9 pm
April 25	-	Introductory visit to High Commission and Development Division; discussions with LMD Director and Staff.
April 26-27	-	Discussions with LMD Staff and scanning documents.
April 28	-	Field trip to Masailand, including visit to LMD facilities at Bissel, Namanga and Kajiado.
May 1	-	Reading reports and documents.
May 2	-	Meeting at BHC; discussions with LMD Staff.
May 3-4	-	Field trip to visit LMD holding grounds and stock routes at Isiolo, Longopito, Kipsing, Nanyuki.
May 5	-	Return to Nairobi; final discussions; depart for London, 6th am.

APPENDIX TWO

DATA SOURCES FOR THIS STUDY

- ODM files: ESA 231/246/01 A-E
  ESA 231/246/02
  ESA 201/222/01 A-B
  ESA 201/258/01
  ESA 201/258/02

Kenya Second Livestock Development Project, Supervision Mission, April-May 1975, IBRD 1975;

Project Performance Audit Report: Kenya First Livestock Development Project, IBRD, October 1976;

Kenya Second Livestock Development Project, Review Mission, February-March 1976, IBRD, March 1977;

Suggested Sections for a Joint Review of the Livestock Marketing Component of the Jointly Financed IBRD Kenya Livestock Development Project, ODM, no date (1976?);

Kenya Second Livestock Development Project, Supervision Mission, May-June 1977, IBRD, 1977;

Kenya Second Livestock Development Project, Supervision Mission, January-February 1978 (BHC Nairobi draft of Annex 11 on LMD);

The Role of the Livestock Marketing Division in Cattle Marketing in Kenya, White J, paper to the International Livestock Centre for Africa, April 1978.

The Development of the Range Land Areas, von Kaufmann R, in Agricultura Development in Kenya: an Economic Assessment, Heyer J, Maitha J K, and Senga W M eds, Nairobi, OUP, 1976;

Livestock and Meat Industry Development Study. Summary of Final Report, for Ministry of Agriculture Kenya, by Chemonics International Consulting Division, Washington DC, in association with Hawkins and Associates, Nairobi, 1977.