



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

UNIDO

**CONTRACT NO. 92/081
PROJECT NO. US/UT/RAF/91/173**

20883

**DIAGNOSTIC STUDY
OF
ZAMBIA PORK PRODUCTS, SME
LUSAKA, ZAMBIA**

FINAL REPORT

BANGALORE - INDIA JUNE 1993



**AMARNATH KAMATH & CO.
MANAGEMENT CONSULTANTS
221, RAHEJA CHAMBERS, 12 MUSEUM ROAD,
BANGALORE-560 001. INDIA
TEL: 589800, 589700, FAX: 91-80-589800**

UNIDO CONTRACT NO. 92/081

PROJECT NO. US/UT/RAF/91/173

ACTIVITY CODE: J12207

REHABILITATION OF INDUSTRIAL ENTERPRISES
IN EAST AFRICA

FINAL REPORT ON
ZAMBIA PORK PRODUCTS SME
LUSAKA, ZAMBIA

PREPARED BY:
AMARNATH KAMATH & COMPANY
MANAGEMENT CONSULTANTS
221, RAHEJA CHAMBERS,
12, MUSEUM ROAD,
BANGALORE 560001
INDIA

DATE OF REPORT: JULY 1993

TABLE OF CONTENTS

	Page
SYNOPSIS	1
I. EXECUTIVE SUMMARY	6
II. PREAMBLE	14
III. CONSULTING METHODOLOGY	16
IV. BACKGROUND	
COUNTRY BACKGROUND	19
THE MEAT PROCESSING INDUSTRY IN ZAMBIA	29
COMPANY BACKGROUND	32
V. DIAGNOSTIC STUDY	
INFRASTRUCTURE	38
PROCESS, PLANT & PRODUCTION	41
MARKETING	48
FINANCE	51
HUMAN RESOURCES	57
VI. CONCLUSIONS	60
ACKNOWLEDGEMENTS	66
ANNEXURES	
APPENDICES	

SYNOPSIS

Zambia Pork Products SME (ZAPP) in Lusaka, Zambia was one of the enterprises selected for study in consultation with the Zambian Ministry of Commerce and Industry and the UNIDO office. After 40 man-days of study, and rendering direct assistance as needed, Amarnath Kamath & Co. (AKC), Management Consultants recommend the following:

ZAPP deserves serious consideration for industrial rehabilitation. Factors that support this recommendation are:

- 1.0 ZAPP has a good range of pork products which are well accepted in a growing market.
- 2.0 The work force and the management team are well motivated.
- 3.0 ZAPP does not carry large debts and hence can raise funds for rehabilitation.

RECOMMENDED REHABILITATION STRATEGIES**A. Activities in the short term to improve profitability**

- 1.0 AKC recommended that the finance and accounts department be moved from its location away from the factory to the head office in the factory to enable the Managing Director to closely supervise and control the department. This has since been done and the city premises have now been rented out. Net gain to ZAPP: US\$ 15,000 per annum.

- 2.0 AKC recommended that an external firm of accountants be appointed to bring the books of account up-to-date.
- 3.0 AKC proposed several control measures to plug loop-holes in banking practices and the handling of cash. These proposals have been implemented.
- 4.0 During the study it was noticed that the Company's insurance policies had lapsed and it had to bear losses on account of theft, burglary and defalcation. AKC recommended that the Company take suitable insurance cover.
- 5.0 The Company continued to extend trade credit even when inflation was running at around 200% p.a. At the same time it was servicing its debt at interest rates which had risen to 75% p.a. by December 1992 and 135% by May 1993. AKC recommended that credit sales be stopped. This resulted in a reduction of debtors from Kwacha 25 million to Kwacha 2.0 million by April 1993.
- 6.0 Selling prices have been periodically increased to keep up with inflationary trends. This was achieved without any decrease in sales. With assistance from AKC's Consultants, the Company increased selling prices four times between December 1992 and May 1993.
- 7.0 ZAPP's marketing strategy was to sell only to a small group of customers and distributors in and around the Lusaka urban area. In December 1992, through advertisements in the press, the Company invited applications from potential distributors in selected cities and provinces in Zambia. AKC's Consultants developed the framework for selecting distributors. This process is now complete.

8.0 It was found that the Engineering and Maintenance Department spent considerable time repairing, refurbishing and painting the Company's motor vehicles instead of maintaining the plant and machinery. Based on AKC's recommendations, repairing of motor vehicles has since been entrusted to garages in the city and the temporary workers in this department removed. This resulted in improved plant efficiency and an annual savings of US\$ 10,000.

9.0 Due to a large leak in the overhead water storage tank the water pumps had to be operated continuously. This resulted in frequent motor burn-outs and pump breakdowns. AKC's Senior Consultant planned a shutdown of the water system and hired mobile cranes to repair the leaking tanks and pipe lines. This will bring an approximate savings of \$ 10,000 per annum.

10.0 Maintenance of the refrigeration system in the cold rooms had been neglected which resulted in poor cooling efficiency and a significant loss of freon gas. The refrigeration system needs to be overhauled immediately to improve efficiency.

11.0 Boiler breakdowns were frequent primarily due to poor maintenance practices, inadequate water softening, leakage of steam and uninsulated steam pipes around the plant. AKC's Senior Consultant initiated steps to repair the pipes and insulate the pipelines. This was completed by the engineering department and will bring approximate savings of US\$ 4,000 per annum.

12.0 The depot at Kitwe could not be supplied with adequate finished products. It was found that maintaining this sales office was not economically justifiable. On AKC's recommendation, the depot has since been disbanded, staff relieved and the premises rented out. From this, a net gain of US\$ 20,000 per annum should be realised.

B. Activities in the medium & long term to improve profitability

1.0 The cold rooms were found to be in a state of disrepair. The ceilings and walls had collapsed in several places and the insulation weakened. Refurbishing the cold rooms involves considerable investment. Proposals for funding this investment have been submitted.

2.0 We recommend that ZAPP purchase a refrigerated van for transporting saleable product to customers and distributors.

C. Preliminary results from activities & recommendations by AKC

1.0 ZAPP recorded a small profit in January 1993 after suffering losses in 1992.

IMPACT OF RECOMMENDATIONS AND CONSULTANT ACTIVITY AT ZAPP

(in million Kwachas, at constant prices)

	1992-93 Actual figures	Cost reduction	1993-94 (#) Improved figures
Turnover	161.70		161.70
Sundry income	1.70	14.00 (*)	15.70
Raw material	109.60		109.60
Variable margin	53.80		67.80
Production expenses	17.40	6.00	11.40
Administration	23.20	2.00	21.20
Marketing expenses	10.50		10.50
Finance charges	7.20		7.20
Operating profit	(4.50)		17.50

(*) Additional income from renting depots in Lusaka and Kitwe.

(#) Turnover for 1993-94 has been taken to be the same as in 1992-93. Inflation presently is more than 200% per annum.

NOTE: The factory had to be closed from February to April 1993 due to an outbreak of swine fever. ZAPP could not, therefore, continue with the successful rehabilitation programme.

I. EXECUTIVE SUMMARY

Zambia Pork Products Limited (ZAPP) was formed on January 1, 1971 when the Government of Zambia nationalised Colcom Products (Zambia) Ltd. and made it a subsidiary of the Rural Development Corporation. The Company was established to encourage pig production in Zambia and provide Zambian pig farmers an outlet for processed pork meat.

Through nationalisation, the Government planned to build an efficient marketing system for pork and processed pork products, both for domestic use and for exports

To encourage local pig farmers improve the quality of pigs raised and increase the quantity of pigs harvested, the Company organised a Farm Liaison Department in 1973, whose main function was to offer farmers a qualified extension service, covering all aspects of pig farm management. In late 1974, the Zambian Government imposed a total ban on the imports of pork and pork meat products, which further encouraged local pig production. (These restrictions were removed in October 1991 under the programme of economic reforms, introduced by the new Movement for Multiparty Democracy (MMD) Government).

In June 1984, the Rural Development Corporation was dissolved. INDECO acquired the entire share holding of ZAPP. INDECO is a subsidiary of ZIMCO, the final holding Company in this chain of share holding.

Zambia Pork Products SME (Self Management Enterprise) was officially launched on March 1, 1989. The concept of self management enterprises was introduced in Zambia through Zambia Pork Products SME (ZAPP).

The Company's Board of Directors comprise of five members: three members are elected from among the employees, one member is nominated by the union, and one is nominated by the Ministry of Labour. The Managing Director is an ex-officio member.

Till 1987, ZAPP consistently recorded losses. In that year management introduced measures to cut costs. As a result, ZAPP recorded a profit for the first time in 1988. Although the Company continued to record profits till 1991, only 30 % of plant capacity was utilised. Margins, however continued to steadily decline.

	('000 Kwachas)				
	1992	1991	1990	1989	1988
Turnover	161,677	92,404	53,448	20,547	10,462
Profit/(Loss) after tax	(4,462)	2,217	2,548	2,101	355

Source: ZAPP - Audited Financial Statements year ending March 1992. Auditors: Audico Associates, Lusaka.

In 1992, only 24% of plant capacity was utilised: 11% below the Company's budgeted level of 35% plant capacity utilisation.

The following have been identified as the major causes for the Company's deteriorating performance:

* Poor administrative and financial controls. There were frequent thefts of finished products and other Company property, besides cash losses through fraud and embezzlement by staff members. Failure to prepare management accounts on time prevented the Company's management from taking timely decisions on several critical issues.

* Weak and ineffective marketing. The Company did not have an organised network of distributors in the principal cities and provinces of Zambia. It did not have well documented credit policies and the lack of incentive schemes did not help in motivating distributors achieve higher sales.

* The Engineering and Maintenance Department was weak and poorly staffed. Although this department was headed by a qualified mechanical engineer who joined ZAPP in September 1992, he inherited a very weak team of support staff. As a result, maintenance of plant and machinery was poor and the culture of preventive maintenance did not exist.

The Senior Consultant (SC) of Amarnath Kamath & Co. held meetings with the Managing Director and each departmental head, to initiate remedial measures to correct identified weaknesses. The objective of these meetings was to improve the performance of the Company without incurring major expenditure. Under the Government's programme of privatising industry, these remedial measures helped project a better profile of the Company to potential investors. The remedial measures acted on were:

1. Finance & accounts

(a) A decision was taken to move the Finance and accounts Department from its location - about 2 kms. away and relocate it in the same premises as the Head Office and Factory to enable the Managing Director to have closer supervision and control over the department.

(b) To appoint a firm of accountants to bring all books of accounts up-to-date. Management accounts had not been presented for more than five months as the books of account were in arrears.

(c) Internal controls on cash and banking were shoddy and several measures were introduced to plug loop-holes, e.g. Consultants found that cheque issue registers were not maintained and the cheque books were not kept under the safe custody of the Finance Manager. The absence of these important control procedures has resulted in the loss of several million Kwachas through the issue of unauthorised cheques. The exact figures could not be computed within the time available to the SC, because of the poor state of the books of account.

(d) The Company's properties were not insured due to a disagreement between the Finance Manager and the insurance company on alleged discrepancies in the payment of earlier premia. Steps to resolve this disagreement were taken and adequate insurance cover was taken for the Company's properties. Had insurance cover been obtained earlier, the Company could have claimed compensation against the burglary and theft of finished products, office equipment and the like. Appendix III contains the minutes of the meeting held in this connection on December 2, 1992 and Appendix V contains the letter addressed to the Managing Director, dated December 15, 1992.

2. Marketing

(a) Even when inflation was running at around 200% p.a., the Marketing Department continued to extend credit. At that time the Company serviced its debt payments with interest rates which had risen to 75% p.a. by December 1992.

The SC initiated measures to allow trade credit facilities only to a few select customers. This improved cash flow by 60%.

(b) The Marketing Manager was reluctant to raise selling prices, even when confronted with evidence that costs of production had risen by more than 30% in the preceding four months. Based on revised product costing, the SC initiated measures to increase selling prices by 40%. There were no adverse reactions from the market to these price increases as ZAPP had been selling at prices below those of the competition. The volume of sales remained the same.

(c) ZAPP concentrated on selling only to a small group of customers and distributors in and around the Lusaka urban area. All marketing decisions including pricing were based on the reactions of this narrow segment of the market. The SC released press advertisements inviting applications from potential distributors in selected cities/provinces in Zambia.

Responses to this advertisement were very encouraging. A corporate committee was set up to screen the applications, short-list the potential distributors and draw-up the terms and conditions for their appointment.

Appendix XI contains copies of two advertisements: (a) copy of the advertisement inviting potential distributors and (b) a promotional advertisement released during the Christmas season.

Appendix VI contains a copy of the letter dated December 22, 1992 addressed to the Managing Director by the SC, suggesting measures for controlling operating expenses and the need to form a committee to finalise the appointment of distributors.

3. Engineering & maintenance

(a) Several technicians and mechanics in the Engineering and Maintenance Departments were found repairing, refurbishing and painting the Company's motor vehicles instead of attending to the maintenance of plant and machinery. AKC's Senior Consultant recommended that the repair of motor vehicles be entrusted to outside motor garages, who are better equipped to perform this task. This would allow skilled technicians and mechanics to carry out the much needed maintenance of plant and machinery. Unskilled personnel employed in the Department could then be laid off, reducing the operating cost of the department. This proposal was implemented, resulting in a perceptible improvement in the efficiency of plant operation. Cost savings of \$ 10,000 per annum.

(b) The overhead water storage tank had developed large leaks due to which the water pumps had to be run continuously, resulting in frequent pump breakdowns and motor burn-outs. The SC planned for a shut-down of the water system, hired mobile cranes and repaired the tank and pipe lines. This resulted in:

* the conservation of water supply;

- * near elimination of frequent motor-burnouts and pump-breakdowns;
- * a reduction in the frequency of plant shut-downs, caused earlier by inadequate water supply to the boiler and to the processing line;
- * the flooding of passages and walkways caused by water leaking from the overhead storage tanks was stopped.

This repair work will result in approximate savings of \$ 10,000, per annum.

(c) Maintenance of the refrigeration system in the cold rooms had been neglected, resulting in poor efficiency and high loss of freon gas. A programme was drawn up by the SC to induct the services of specialised engineering companies, to carry out repairs of critical refrigeration equipment. The Company was incurring large expenditure in replenishing refrigeration gases leaking from several locations. Plugging these leaks could save the Company approximately \$ 15,000 per annum.

(d) Boiler breakdowns were frequent due to poor maintenance practices, inadequate control on the water softening process, the leaking of steam at various points and long lengths of uninsulated steam pipes, both inside and outside the plant.

The SC initiated steps to repair the pipes and insulate the pipelines. The Engineering Department started sourcing materials necessary to complete this work. When completed it should result in substantial improvement in production and energy savings of approximately \$ 4,000 per annum.

(e) The insulation in all the cold rooms was found to be in a state of total disrepair and the ceilings and the walls had collapsed in several places. Rodents had burrowed holes in the insulation and refrigeration ducts. The main doors to the cold rooms had corroded and the supporting hinges on some of them had given way, resulting in improper closure and substantial loss of cooling capacity.

The cold rooms need extensive rehabilitation, both in terms of complete replacement of all insulation and selective replacement/repairs of the refrigeration equipment. The SC in consultation with the Technical Manager and his team worked out a programme for carrying out in-house repairs to insulation and repairs to refrigeration equipment through outside agencies (see item (c) above).

II. PREAMBLE

INTRODUCTION

On October 9, 1992, Messrs. Amarnath Kamath & Co., Management Consultants, signed contract no. 92/08i with UNIDO, in Vienna, to provide services for carrying out a project entitled "REHABILITATION OF INDUSTRIAL ENTERPRISES" in the East African countries of Tanzania, Uganda & Zambia.

The objectives of the project are:

- a) To advise the Government of each country and the selected enterprises, in short and medium term, on measures to rehabilitate them and to provide direct assistance during the diagnostic analysis.
- b) To encourage and define possibilities and means for enterprise to enterprise co-operation between the industrial enterprises audited and similar enterprises in India for transfer of technology and technical assistance.

The following is the scope of work, objective-wise:

1. Objective (a)

- i) Diagnostic reports to be prepared for the enterprises audited and extend adhoc direct assistance to them.
- ii) Provision of direct assistance to improve management systems and productivity of manpower and equipment in the enterprises.

2. Objective (b)

A report to be prepared containing:

- i) the approach and procedures for maintaining enterprise to enterprise cooperation between the industrial enterprises in East Africa and industrial enterprises in India.
- ii) a list of opportunities of enterprise to enterprise cooperation identified during the implementation of the project.

A progress report and a draft final report have been submitted, documenting the activities of our consultants. This is the final report of the study undertaken by us in Zambia Pork Products SME.

III. CONSULTING METHODOLOGY

Zambia Pork Products SME (ZAPP) was selected for diagnostic study after a visit to the unit by the Chief Executive and Senior consultant (SC) from M/s. Amarnath Kamath & Co., Bangalore, India, in consultation with the Zambian Ministry of Commerce and Industry and the UNIDO office in Lusaka. A detailed study was undertaken by a team of qualified Consultants, experienced in corporate turn-around. This team, consisting of a Team Leader, a Senior Consultant and a Technical Consultant, spent 2, 4 and 1 week respectively at ZAPP

Mr. A. Kamath, Chief Executive, Messrs. Amarnath Kamath & Co., Bangalore, India and Mr. C.R. Seetharam, Team Leader, returned to Zambia on May 10, 1993. They presented the draft final report to officials of the Zambian Ministry of Commerce and Industry, the UNIDO Country Director, Deputy High Commissioner of India and to ZAPP officials in Lusaka on May 12, 1993. Observations and comments received on the draft final report, and updated information made available have been incorporated in this final report.

SCOPE OF WORK

The diagnostic study of Zambia Pork Products SME (ZAPP) covered three specific activities:

- * An audit of all the major management functions: production, materials, finance, human resources and information systems and identifying weaknesses in each function.

- * Direct intervention in the day to day management, guiding managers in the weak areas and focussing on overcoming these weaknesses.
- * Identifying opportunities for enterprise to enterprise cooperation between ZAPP and similar enterprises in India for transfer of technology and technical assistance.

The methodology used to achieve the above consisted of regular management meetings with all the major operational departments: Finance, Production, Engineering and Maintenance, Marketing, Purchase & Supplies and Human Resources. AKC's Senior Consultant circulated an agenda for these meetings and questionnaires relevant to the topic under study to all the participants, well in advance of the meetings. In each meeting, one participant was nominated to maintain and draft the minutes of the meeting. This encouraged the participants to get involved in the process of decision making, which the SC considered was an important step to motivate the departments in implementing the action plans. The minutes of these meetings are presented in Appendices I - IV.

The SC also held meetings with officials in the Ministry of Agriculture, the FAO and Zambia Privatisation Agency (ZPA). He also visited KITWE in the Northern Copper belt area to inspect the Company's area office and its facilities: the refrigeration rooms and sales office. The Managing Director of ZAPP and the Team Leader accompanied the SC on this visit.

The SC also held meetings with the General Manager of the Bank of Zambia (Zambia's central bank) and the Managing Director of the Indo-Zambia Bank Ltd.

The SC also visited various super-markets and retail outlets that stocked and sold food items, particularly processed meat, to get a feel of the relative strengths and weaknesses of the various brands of meat products in the market and more especially pork products processed by local manufacturers, as well as those which came into the country, officially or otherwise, from neighbouring countries, such as Zimbabwe and South Africa. Samples of ZAPP's and competitor's products were taken from the market and sent for analysis. This report is presented in Appendix XIII.

Meetings were also held with firms that provided engineering services in specific areas such as refrigeration and cold room insulation and suppliers of plastic packaging materials.

IV. BACKGROUND

1.0 ZAMBIA - COUNTRY BACKGROUND

1.1 Demographic outline

Formerly known as Northern Rhodesia, Zambia takes its name from the Zambezi river which rises in the northwestern corner of the country and forms most of its southern boundary. Zambia is a large, landlocked country (752,614 sq. kms.), located 18 degrees south of the equator. Zambia is bordered by Zaire and Tanzania in the north and northeast, Malawi and Mozambique on the east, Zimbabwe on the south, Namibia via the Caprivi Strip and Angola on the west.

Although there is climatic variation from the semi-arid western region to the swampy Lake Bangweli area in the northeast, most of Zambia lies on a plateau with height between 3500 and 4500 feet above mean sea level. The plateau is broken-up by the wide valleys of the upper Zambezi and its major tributaries of which the Kafue and Luangwa Rivers are the largest. Near Livingstone, the Zambezi river passes over the Victoria falls and then enters Lake Kariba, the world's largest man-made lake, which is formed by a dam at Kariba gorge.

Zambia has three distinct seasons: cool and dry from May to August, hot and dry from September to November and warm and wet from December to April. The high altitude tempers the humidity so that the climate is generally pleasant. Climatic conditions also make possible the cultivation of a wide range of crops: corn, tobacco, cotton, rice and wheat, both tropical and citrus fruits, a wide variety of vegetables, tea and coffee and flowers. The average annual rainfall is 32 cm. and the temperature varies between 10 & 32 degrees Centigrade or 50 & 89 degrees Fahrenheit.

The population in 1991 was estimated at 8.21 million. The crude birth rate has remained almost static since 1960 at around 50 per 1,000. Almost one half of the Zambian population is urban, the largest urbanised population in Africa. The majority of the other half are subsistence farmers. About one fifth of the population lives in the copper belt towns - KITWE (440,000), NDOLA (380,000), MUFULIRA (175,000), CHINGOLA (187,000), LUANSHYA (148,000). Lusaka, however has the largest population (approx. 1.0 million). Outside the copper belt, KABWE with 167,000 and Livingstone with 84,000 are the other large urban areas.

1.2 Structure of the economy

Zambia achieved independence in 1964. Dr. Kenneth Kaunda was Zambia's president for the first 27 years. In October 1991, Zambia held its first multi-party elections and elected its new president, Mr. Frederick J. Chiluba, with an overwhelming majority.

Zambia is a leading producer of copper and cobalt, which together comprise 85 % of its exports. This situation renders the economy particularly susceptible to world economic trends. Over dependence on copper at the expense of agriculture, manufacturing and tourism has proved to be a major pitfall. The money earned from export of copper was used to build a consumption subsidised economy at the expense of local production. Food at one point was subsidised to the tune of 80 %. When copper prices crashed, the government turned to massive external borrowings to keep this consumption subsidised economy going. When the time came to pay up, the government was unable to meet its commitments and was forced to implement World Bank and IMF backed programmes. These called for reduction in subsidies, especially on food, to keep the aid trickling in.

The state sector dominated the economy, running some 120 companies ranging in size from the giant Zambia Consolidated Copper Mines (ZCCM) to breweries, small bakers, travel agencies, tile units, stone crushing, meat factories, etc.

The economy has been plummeting over the years, recording negative growth rates in the past few years. Real GDP declined by 1 % in 1989, by 0.5 % in 1990 and 1.8 % in 1991. During the same period, the per capita GDP slid even more alarmingly, it registered a negative growth of 4.4 % in 1989, of 3.9 % in 1990 and 5.1% in 1991. This decline is highlighted against the background of Zambia having had the third highest per capita income in Africa, after South Africa and Egypt, at the time of independence in 1964. The drought, the first in Zambia in many years, has been an unexpected set-back for the new government which had strived hard to put the economy back on rails. The real GDP is likely to decline by 9 % in 1992.

1.3 Debt

The gross external debt of Zambia as on December 31, 1990 was in excess of US \$ 7 billion. This made Zambia, with a population of eight million, one of the world's highest per capita indebted (US \$ 800/900 per capita) countries. Debt service ratios have been gradually mounting from 58 % in 1989 to 60 % in 1990, 65 % in 1991 and is expected to touch 66.2 % in 1992.

1.4 Currency

Responding to pressure from IMF, the Government introduced a weekly foreign exchange auction in October 1985 to allocate funds for imports and set the exchange rate for all foreign currency

transactions. The first auction resulted in a 56 % devaluation of the Kwacha whereby K 5.01 = US\$ 1.00 and the trend thereafter was steadily downward.

In July 1989, the Government announced that old currency notes would be withdrawn and replaced by new ones, at par. A 13 day period was allowed for the changeover, the third since independence, during which the borders were closed to prevent people trying to bring back Kwacha that had been smuggled out. On February 19, 1990, a dual exchange system came into effect: Official Exchange Rate (OER) and Market Exchange Rate (MER). OER was K 25 = US\$ 1.00 and MER was K 40 = US\$ 1.00

By end December 1990 OER was K 48 = US\$ 1.00 and MER some 15 % higher. On May 1, 1991 the two rates were merged at K 58.8 = US\$ 1.00. In the MMD's first budget in January 1992, a 30 % devaluation was announced and the rate was fixed at K 125 = US\$ 1.00.

Average exchange rates

Kwacha per US Dollar

1982	1983	1984	1985	1986
0.928	1.251	1.794	2.714	7.305
1987	1988	1989	1990	1991
8.889	8.224	12.903	28.986	61.728

The Kwacha continued its downward slide in 1992, as shown below:

Exchange rates	June 1992	July 1992	Nov. 1992	Dec. 1992
Kwacha/US \$	305.51	332.04	335.00	340.00

On December 19, 1992, the dual exchange rate policy was abandoned and a single market rate established.

1.5 General macro economic conditions

Inflation is by far the single biggest scourge confronting the policy makers in Zambia. The overall decline in the Zambian economy is attributed to the fact that inflation adjusted growth rate has been minuscule, when not negative, in the recent past.

Inflation which was running around 150 per cent during the third quarter of 1992 was expected to cross the 200 % mark by early 1993. It has eroded the buying power of the Kwacha, battered business, discouraged savings and more importantly may discourage prospective foreign investment. Macro economic policies followed to curb inflation have hinged upon reducing the excessive money supply in the economy.

The Bank of Zambia (BOZ), the country's central banker, introduced a number of measures to regulate money supply. It has adopted a policy of maintaining high Statutory Reserves (SR) for commercial banks. On September 14, 1992 the SR was reduced from 28.5 % to 23.5 %. Simultaneously, the Liquid Assets Ratio (LAR) was increased from 30.5 % to 35 %. The twin measures were adopted to support the profitability of the banks and at the same time reduce money supply.

Interest rates were allowed to float free. The lending rate which was around 60% by the end of the third quarter of 1992 had already climbed to 75% by December 1992. The Government's decision to free interest rates is consistent with its policy of free market economy but when compared with the inflation rate the interest rate is still a negative rate in Zambia. Real negative interest rates in Zambia have been highly detrimental to savings. People find hoarding of goods, the best hedge against inflation.

It would appear that the biggest culprit for fueling inflation has been the government, whose expenditure has been mounting due to steep increases in salaries and wages necessary to keep pace with inflation. Failure to curb inflation is attributed to the failure of demand management, the corner stone of the macro-economic policies on which the IMF and the World Bank backed plans in Zambia rely heavily upon.

If inflation could be contained, quite a few investment avenues would open up in Zambia. Agriculture, mining and tourism are some avenues with great potential.

1.6 Privatisation

As part of its structural reform programme, the Movement for Multiparty Democracy government of Mr. Frederick J. Chiluba, launched a programme to privatise the Zambian economy. MMD had committed to privatisation in its party manifesto, which stated that "the current economic role of government as a central participant in business undertakings shall cease. Free market and not nationalisation will become the foundation stone upon which the economy under the MMD government shall operate".

The Privatisation Act 1992 was enacted by the Zambian Parliament on July 3, 1992. The Act provided for the privatisation and commercialisation of State owned enterprises, for the establishment of the Zambia Privatisation Agency (ZPA) and to define its functions and to provide for the sale of shares in state owned enterprises.

ZPA has been designated by the government as being the sole authority vested with powers to deal with the privatisation of parastatal (public sector) companies.

Another critical part of the structural reform package was the abolition of subsidies, including the highly sensitive subsidy on "mealie meal" - the country's staple diet. The government's commitment on privatisation is based on the realisation that it has neither the administrative capacity nor the economic resources to ensure that the parastatal sector which accounts for 80 % of the economy operates efficiently and effectively.

Most of the parastatals operate at less than 50 % capacity. They also need massive capital investment to rehabilitate and expand their business operations and to become viable operating enterprises. Zambia Consolidated Copper Mines (ZCCM), the country's biggest mine and the largest contributor to the national income is estimated to require in excess of half a billion dollars in terms of new investment. It is unlikely to get this type of money, if it remains within the folds of the parastatal sector.

The MMD government's privatisation programme has, however, attracted strong protests. Things were going smoothly until the government announced that in pursuance of its "no sacred lamb" approach to privatisation, ZCCM, Post & Telecommunications Corporation and Zambia Electric Supply Company would also be privatised. Protests from the Mine Workers Union of Zambia, a powerful lobby in Zambia's copper belt, predictably followed. The government was forced to concede that ZCCM would not be privatised overnight. The government has now taken a stand that while in principle ZCCM will be privatised, it will be done only after a few years, along with enterprises of national and economic importance.

Continuing drought added to the woes of the government and set back the privatisation programme to some extent. ZPA, however, has kept the time table for privatising the first tranche of 17 companies reasonably on track, upto the stage of receiving offers from potential investors. Meanwhile, some controversy arose in January 1993 about the interpretation of the term "Eligible Buyer" as contained in the Privatisation Act. This has temporarily stalled further decisions regarding the companies in the first tranche. ZPA officials feel that these "teething" problems are likely to be resolved soon.

1.7 Preferential Trade Area

The treaty establishing the Preferential Trade Area (PTA) was signed on December 21, 1981 and came into force on September 30, 1992. It presently comprises of 18 states: Angola, Burundi, Comoros, Djibouti, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Rwanda, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

The objectives of the PTA are:

- * to promote cooperation and integration covering all fields of economic activity particularly trade, customs, industry, transport, communications, agriculture, natural resources and monetary affairs;
- * to raise the standard of living of the people by fostering closer relations amongst its member states;
- * to create a common market by the year 2000 in order to allow for the free movement of goods, capital and labour within the sub-region and

- * to contribute to the progress and development of the other African countries.

PTA has set an agenda for itself to attain full market integration leading towards the transformation of the PTA into a Common Market for Eastern and Southern African States (COMESAS).

This will entail:

- * Implementation of the monetary and fiscal policy harmonisation programme and a common investment policy;
- * Streamlining the "Rules of Origin" to encourage cross-border investment and new joint ventures;
- * Abolition of the "Common list" so that all commodities produced in the sub-region, including those from the indigenous small and medium scale enterprises, will have access to the common market;
- * Implementation of all trade facilitation measures such as the convention on the simplification and harmonisation of customs procedures, the Road Customs Transit Declaration Document and implementation of the Automated System for customs data;
- * Intensification of the programme on trade information network, supply and demand surveys, buyer/seller meetings, product adaptation, quality control, packaging and labeling and
- * Establishment of the sub-regional payments union as an integrated part of COMESAS.

The gradual elimination of tariff barriers on intra-PTA trade is expected to be completed by the year 2000. Non-tariff barriers, import restrictions, advance import deposits, etc. are also to be eliminated and a common external tariff with respect to goods imported from third countries introduced. This will take place in concert with the elimination of internal tariffs. PTA assumes vital importance because it represents a community of 220 million with a total GDP of around US \$70 billion. If South Africa were to enter PTA, it would bring to the trade bloc its financial and technical strengths. South African money and expertise coupled with the cheap labour and the rich natural resources of the region promises to be a winning combination. There is considerable enthusiasm in Zambia about South Africa which has already opened a trade mission in Lusaka.

Other priority areas to support market integration as highlighted in the PTA Trade and Development strategy are:

- i. Increasing production of goods and services of high standard, competitive in price and quality, destined primarily for the intra-PTA market.
- ii. To bring PTA economies together by providing adequate transport and communications to closely link the national markets into one common market.
- iii. Assist the lesser developed countries in the PTA to industrialise much faster so as to produce more competitive goods and services for export to the PTA market.

2.0 MEAT PROCESSING INDUSTRY - BACKGROUND

2.1 An overview

The meat processing industry in Zambia covers the slaughtering and processing of cattle, pigs and poultry. The livestock sub sector is not very big in relation to the size of the country and its population. Statistical information available on the stock of slaughtering animals for meat processing is unreliable.

Table 1 below gives Ministry of Industry estimates of the livestock population.

Table 1 - Livestock Population Estimates

	1985	1986	1987	1988
<u>Cattle (Million heads)</u>				
Traditional	2.076	2.107	2.167	2.229
Commercial	0.393	0.413	0.433	0.455
Total	<u>2.469</u>	<u>2.520</u>	<u>2.600</u>	<u>2.684</u>
<u>Sheep & goats ('000 heads)</u>				
Traditional	424.36	453.70	485.48	519.98
Commercial	32.19	35.41	39.95	42.85
Total	<u>456.55</u>	<u>489.11</u>	<u>525.43</u>	<u>562.83</u>
<u>Pigs ('000 heads)</u>				
Traditional	156.04	162.86	170.09	177.82
Commercial	21.55	23.71	26.09	28.69
Total	<u>177.59</u>	<u>186.57</u>	<u>196.18</u>	<u>206.51</u>

Source: Ministry of Agriculture

One of the major constraints in the area of manufacturing and processing pork products is the shortage of pigs. It is reported that some of the farmers engaged in pig farming have since switched over to other areas of business due to the rising cost of stock feeds. The farmers have not been able to pass on the increased costs to the processors or to the consumers.

The efficiency of commercial pig production in Zambia is also considered low. The average number of pigs slaughtered per sow is estimated to be 11 per year and the overall feed conversion ratio (total feed consumed divided by total dressed weight) is reported to be 7.24. Similarly, the feed conversion ratio for slaughter pigs is reported to be four to one. The main reasons for this are low management standards, low quality of feed and the unreliable supply of feed.

Table 2 shows the summary of livestock slaughtering.

Table 2 - Summary of livestock slaughtering

	1986	1987	1988
Cattle	85,875	81,679	116,041
Pigs	17,344	15,395	18,466
Goats	1,205	810	1,086
Sheep	651	1,047	858

Source: 1988 Agricultural Statistical Bulletin
(Latest available figures)

Ministry of Agriculture
(Statistics Section, Planning Division)

Another problem faced by the meat processing industry is the shortage of spare parts for critical and essential equipment. The lack of skills at all levels, from management to shop-floor, is clearly evident. Getting the right personnel is a major problem.

Without well-developed human resources, Zambia will continue to be highly dependent on donor technical assistance and financial contributions. It is common knowledge that public health, nutrition and education leaves much to be desired in Zambia. In spite of the high number of casualties as a result of the cholera epidemic which has been rampant in the country for more than a year, the administration has been unable to eradicate this dreaded disease and cholera continues to take its toll of human lives. It is important for the government to give this area, the highest priority, as any effort put in to boost both agricultural and industrial output are unlikely to be successful in the longer term, if human resource development does not receive the attention that it deserves.

The opening up of the Zambian market to South African products has exposed the meat processing industry in Zambia to active competition. South Africa has a large and mature industrial sector, with a highly skilled and experienced labour force and is in a position to take advantage of the economies of scale.

Although there is some level of tariff protection available to local meat processors, the loosely controlled borders allow processed meat products to filter through and they are freely sold through retail outlets in most of the major cities. The anxiety of local manufacturers is reflected in a letter addressed to the Minister of Agriculture, Food & Fisheries, by the Zambia National Farmers's Union on October 29, 1992 (See Appendix XII).

3.0 BACKGROUND OF THE COMPANY

Zambia Pork Products Limited was formed on January 1, 1971 as a result of the takeover of Colcom Products (Zambia) Ltd. by the Zambian Government, under its nationalisation policy. The Company became a subsidiary of the Rural Development Corporation. The Company was established to provide a ready processing outlet for pigs raised by Zambian farmers and to encourage pig production, in general, throughout the country.

The long term objective behind the government decision was to provide an efficient marketing system for pork and processed pork products, both for domestic use and for exports.

In order to encourage local pig producers to increase pig production and to improve the quality of pigs, the Company established a Farm Liaison Department in 1973, whose main function was to offer qualified extension service to farmers, in all aspects of pig farm management. As a further measure to encourage local pig production, the Zambian government, in late 1974, placed a total restriction on the imports of pork and pork meat products. However, these restrictions were lifted under the recent economic reforms introduced by the new MMD (Movement for Multiparty Democracy) government in October 1991.

In June 1984, the Rural Development Corporation was dissolved and INDECO became the immediate holding Company, with ZIMCO as the final holding Company.

Zambia Pork Products SME (Self Management Enterprise) was officially launched on March 1, 1989. The concept of self management enterprises was introduced in Zambia through Zambia Pork Products SME.

The Company's plant is in shambles due to aging and poor maintenance. The practice of preventive maintenance is conspicuous by its absence. The conditions of the building, offices and furniture are no exception. The financial performance of the Company has begun deteriorating and for the year ended March 1992 the Company has recorded a loss of K 4.5 million.

3.1 Location

The factory and head office are situated in the strong industrial area on Old Mumbwa Road, about 2 kms. from the Central business district of Lusaka.

3.2 Inputs

The utilisation of plant capacity during the last five years has remained below 35%, due to the inadequate availability of pigs. During 1991-92 the capacity utilisation fell even further to 24%. The input of raw materials, i.e. pigs, was budgeted at 15,120, whereas the actual receipt was only 10,128 pigs. Other important inputs are -

* Casings	* Salt	* Flour	* Packing materials
* Rice	* Spices	* Milk Powder	

Except for casings and spices which are imported all other materials are bought locally. The imported items, i.e. natural plastic casings and spices are procured from South Africa. Printed plastic bags used for vacuum packing are also imported occasionally due to the unreliable quality of local supplies.

Reference may be made to Appendix VIII for a comprehensive list of commercial and small scale farmers who supply pigs to ZAPP.

3.3 Outputs

ZAPP's range of products include sausages and polonies, bacon and ham, cured meat and fresh meat.

The total production throughput for the financial year 1991-92 was 724,522 Kgs. and an average selling price of K 226.84 per Kg. was realised. The capacity utilisation at 24%, was 11% below the budgeted level of 35%.

3.4 Major Competitors

The main manufacturers of pork products are concentrated around the Lusaka area. They are -

- * Zambia Pork Products SME
- * Twikatane Farm Products
- * Lusaka Cold Storage Ltd.
- * King Farm Products Ltd.
- * Bucaneer Products

(a) Customers perceive ZAPP's product quality as superior to that of most of the Company's competitors. The demand for ZAPP's products is far in excess of its ability to supply. The Company could increase production, ensuring regular and uninterrupted supplies, by paying the pig farmers promptly. To do this the Company requires a larger working capital base.

The Company's cash flow is affected by the granting of customer credit to those who consistently fail to settle their outstandings on time. The Marketing Department is not aggressive and has failed to do its homework in ranking and rating customers. This is being done now after the intervention by the SC.

ZAPP's market is concentrated mainly in and around Lusaka and to some extent in the southern region along the railway line down to Livingstone. The second area is around the Copper belt, where ZAPP has an advantage of having an area office located at KITWE. This office is well equipped, with three refrigerated cold rooms, sales office and the attendant staff. Unfortunately, ZAPP has not been able to capitalise on this large market in the Copper belt due to the poor initiative and lack of will to feed that area with adequate supplies.

If ZAPP can increase its throughput and improve its distribution, the KITWE supply point could turn out to be a winner. ZAPP's coverage of supermarkets and other prominent retail outlets in Lusaka itself is poor and there is no semblance whatsoever of aggressive and innovative marketing. Appendix I contains minutes of management meeting held with the marketing department on November 25, 1992 and Appendix IV giving minutes of the meeting held at Kitwe Depot on December 5, 1992. Both these meetings discussed issues relevant to marketing.

(b) Twikatane Farm Products, in Lusaka, is ZAPP's major competitor. This is a non-profit organisation operated by a religious order. Twikatane has better distribution at the super market level, and has thus achieved a marginally higher market share (approx. 45%) against ZAPP (approx. 40%), at higher prices. We learnt that they exercise tight credit control. Their products, which are better packaged, are however, not considered to be as good in quality as that of ZAPP.

(c) The remaining 15% of the market is shared by -

- * Lusaka Cold Storage Ltd., Lusaka
- * Kyundu Ranch (30 kms. from Lusaka)
- * Buccaneer Products (30 kms. from Lusaka)
- * King Farm Products, Lusaka
- * Zambia Cold Storage Corporation Ltd., Lusaka
- * Modern Meat Products, Chnigole
- * Mushima, Kitwe

3.5 Utilisation of Plant Capacity

As a measure of plant capacity utilisation, ZAPP uses the term "actual percentage production throughput". This term is defined as a percentage of the theoretical target of 250,000 Kgs. of output per month (3 million Kgs. per annum) from a factory input of 40,000 pigs per annum (average CDW 75 Kgs.). Given the present condition of the plant and machinery, the maximum utilisation possible is 35 % of the installed capacity. Given these definitions, Table 3 shows actual plant performance over the three years, 1989-90 through 1991-92.

Table 3 - Total production and actual percentage production throughput for the years 1989-90 to 1991-92

Year	Total production	Actual production throughput
1989-90	1,020	34%
1990-91	1,057	35%
1991-92	725	24%

Source: ZAPP - Budget Data for 1992-93

Besides the poor condition of the plant and machinery, the following factors also contributed towards low plant capacity utilisation -

- * Low input of pigs
- * Shortage of essential ingredients and casings
- * Stock out of packing materials and consumables
- * Frequent production stoppages due to boiler breakdowns and refrigeration problems.

In order to supplement production, a limited quantity of beef is also bought, depending on market prices. The prices set by producers for both pork and beef increased dramatically throughout the financial year 1991-92 and the comparative figures at the end of 1990-91 and 1991-92 are shown in Table 4:

Table 4 - Comparative prices of pork and beef at the end of the financial year 1990-91 and 1991-92

	1990-91 Kw/kg.	1991-92 Kw/kg.	%
Pork CDW	93.70	161.40	+82
Beef CDW	76.47	139.20	+72

Management is apprehensive about its ability to use beef as an added input during 1992-93 because of the steady increase in its procurement cost, which is expected to equal or exceed the cost of pork.

V. DIAGNOSTIC STUDY

1.0 INFRASTRUCTURE

1.1 Location

(a) The plant is located alongside the Head Office on Old Mumbwa Road, in the heavy industrial area, 2 Kms. from the central business district of Lusaka.

(b) The Finance and Accounts Department and a warehouse used to store packaging materials, spices and engineering spares, were located on Cha Cha Cha Road, in a prime commercial area in the city centre, until recently.

(c) The Company also owns property in Kitwe, an important town in the Northern Copper belt, where its Northern area office was located. This depot acted as a supply source to serve all the major towns in the Copper belt area. The depot had four refrigerated stores, out of which two were non-functional. This depot has since been closed.

1.2 Facilities

The plant, a layout of which is given overleaf, consists of the following major buildings:

* Administrative block	- 600 square meters
* Lairage	- 220 square meters
* Abattoir and processing factory	- 7800 square meters
* Boiler house & engineering workshop	- 200 square meters

(a) The administrative block accommodates the Managing Director, his Secretary, the Technical Manager, the Human Resources Manager and his supporting staff.

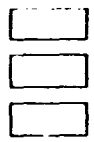
OPEN AREA - 5500 Sqm



DISPOSABLE WASTE STORAGE - ENTRAILS, NTESTINES ETC.



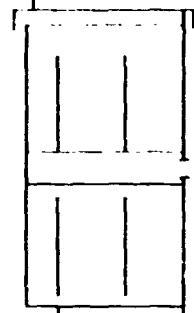
WATER SOFTENING PLANT



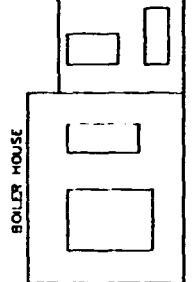
FUEL OIL STORAGE

PARKING AREA FOR REFRIGERATED DELIVERY VEHICLES

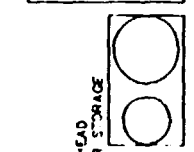
OFFICES MARKETING PURCHASE & ENGINEERING



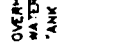
WORK SH-OP



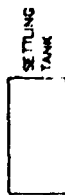
BOILER HOUSE



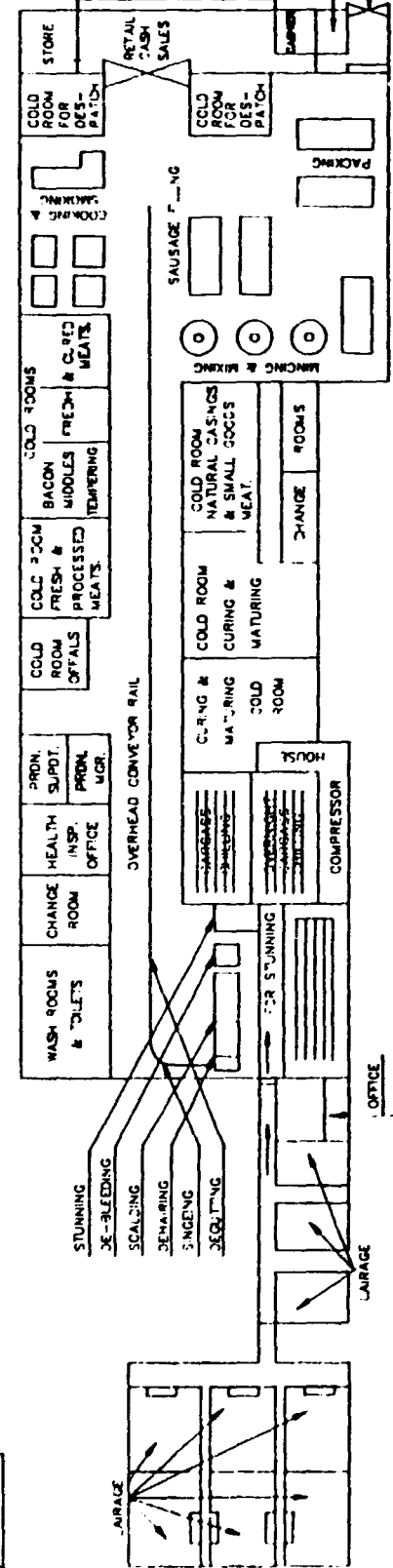
OVER-HEAD WATER STORAGE TANK



RAILWAY LINE



SETTLING TANK



STUNNING & BLEEDING

SCALDING

DEHAIRING

SINGING

SCOURING

WASH ROOMS & TOILETS

CHANGE ROOM

HEALTH INSP. OFFICE

PRON. SUPPT. OFFICE

PRON. UGR

COLD ROOM OFFALS

COLD ROOM FRESH & PROCESSED MEATS

COLD ROOM BACON MIDDLES FRESH & CURED MEATS

COLD ROOMS

COOKING

SAUSAGE FLOOR

MINCING & EXING

COLD ROOM NATURAL CASINGS & SMALL GOCCS MEAT

COLD ROOM CURING & MATURING

CURING & MATURING COLD ROOM

CHANGE ROOMS

RETAIL CASH SALES

COLD ROOM FOR OFF. PATCH

COLD ROOM FOR DES-PATCH

PACKING

TEL OPERATOR

ENTRANCE TO OFFICE OF THE M.D. (1st FLOOR)

SECURITY & GUARD HOUSE

MAIN ENTRANCE GATE

PETROL FILLING POINT

PUMP HOUSE

UNDER GROUND WATER STORAGE

PLANT LAYOUT NOT TO SCALE

DELIVERY AREA FOR PIGS

OFFICE PIG RECEIPTS

LAIRAGE

LAIRAGE

LAIRAGE

LAIRAGE

LAIRAGE

LAIRAGE

LAIRAGE

LAIRAGE

LAIRAGE

TAMBIA PORK PRODUCTS SWE
310 MUMBAI RD
P.O. BOX 11405
MUMBAI

UNDRGROUND DRAIN

(b) The most important department, Finance and Accounts, was located approximately 2 kms. away. On the recommendation of AKC's Consultant it has since been shifted to the factory premises.

(c) The lairage has a capacity to hold a maximum of 250 pigs at one time. It has small and large pens. Each pen is equipped with watering facilities. The existing arrangements are adequate.

(d) The abattoir and processing sections are slightly congested and hamper easy movement of materials in process, when production is normal. The flooring and drainage are not satisfactory, particularly in terms of cleanliness and hygiene. The transfer of materials in process is done manually with the help of overhead rails. This appears to be working satisfactorily.

(e) There are eleven cold rooms out of which five are non-operational while the remaining six are in various stages of disrepair.

(f) The condition of the boilers is very bad. The main boiler has been out of commission for more than a year. Spares have not been procured for want of funds. The standby boiler has presently kept the operations going. Its condition is also weak and may suffer a serious breakdown before long.

(g) A quality control laboratory needs to be set up at the earliest.

(h) The factory is connected to the national network by the Zambian Railway's siding which has not been in use for more than six years. The possibility of putting it to use in the foreseeable future appears to be remote.

(i) The engineering workshop has a centre lathe, a pedestal drilling machine, a pedestal-grinder, a welding machine, a work-table with vice, etc. The workshop is poorly maintained, with several pieces of equipment from the factory lying about on the workshop floor and work table. It is quite obvious that the department is operating without direction, which is also evident from the poor maintenance of the plant and machinery.

1.3 Utilities

(a) The cleanliness and hygiene at all locations is far from satisfactory. The workers changing rooms are unkempt and the walls need painting.

(b) Toilets are not regularly cleaned and disinfected. Most of the toilets are broken and need replacement. Plumbing needs to be repaired, to ensure reliable supply of water.

(c) Many of the wash-basins which were originally provided do not exist. Overhead water heaters that have broken down have not been repaired or replaced. These need to be rectified, and workers provided with disinfectants and soaps.

(d) Workers are not provided with gloves and use their bare hands while handling minced meat and other meat products. This is highly undesirable. Machine operators are not provided with head-covers to prevent contamination of food.

(e) Many of the fly-repellent lamps are not functioning and need replacement. The production areas are swarming with flies, a serious health hazard. The non-functional insect repellent lamps should be replaced urgently and additional ones provided, wherever necessary, in the process areas.

2.0 PROCESS, PLANT AND PRODUCTION

2.1 Process

The process flow chart is illustrated in Annexure - II. While the process flow is satisfactory, cleanliness and hygiene need to be improved considerably. The cold rooms, with the collapse of the insulation and caving-in of the ceiling, have become a breeding ground for rodents and pests. This is another major health hazard and the rehabilitation of the cold rooms needs to be given the highest priority.

The present method of waste disposal is unsatisfactory. Large intestines as well as small intestines, along with condemned carcasses and offal are dumped in an open shed with a lean-to roof, about two hundred yards away from the factory building. These waste-products are supposed to be cleared periodically by the council transport. In practice, the clearance is irregular and unreliable, causing the decomposition and putrefication of the waste products, attracting flies and pests, which, in turn, find their way to the factory and process area since none of the doors and windows are protected either with mesh or air-screens. This situation needs urgent and immediate attention by the management.

(a) Stunning & debleeding

The pigs are ushered into the stunning chamber and are stunned with a 90-volt stunning device and then hoisted up. The blood vessels of the throat are then slit and the blood drained into the blood pit.

(b) Scalding & de-hairing

The carcasses are lowered from the hoist into the scalding tank, the water in which is maintained at a temperature of about 75 degrees Celsius. No thermometer is provided to ensure that this temperature is maintained. After three to four minutes in the tank, the carcasses are lifted into the de-hairing unit.

(c) Singeing & degutting

After de-hairing the carcasses are hoisted up and transferred via the overhead rail for singeing by hand-operated butane burners to remove the remaining stubbles of hair. The carcass is then moved to the degutting area after being washed under an overhead shower. The underside of the carcass is then slit open with a knife and the intestines are removed and disposed off. The small intestines are cleaned and used as sausage casings. The liver, lungs and tongue (red offals) are sold.

(d) Weighing and inspection

Carcasses are washed and weighed after which they are inspected by a City Council Health Inspector who determines their fitness for human consumption. The carcasses are then graded according to their quality.

(e) Storage

The weighed and graded carcasses are then moved to the cold rooms for overnight chilling at 4.5 degrees Celsius to -2 degrees Celsius, or for long-term storage at -8 degrees Celsius. Out of the eleven cold rooms, five are totally non-operational and the remaining six are in various stages of disrepair.

(f) Cutting & chopping

From the refrigeration rooms, the carcasses are transferred to the cutting room for de-rinding. The refrigeration equipment in this area has not functioned for more than six years. The ambient temperature in this area is the normal atmospheric temperature of the day. Both the cutting machines are not operational and cutting is done manually with knives and choppers.

No facilities are available for sterilising the knives and choppers. The workers are not provided with suitable gloves and protective caps. Aprons used were generally very dirty and obviously in use for several days without changing. Personal washing facilities are inadequate. The floors are washed at the end of the day with plain water, without disinfectants.

(g) Mincing & processing

The boneless meat from the cutting and chopping section is then sent to the small goods section for processing into sausages. The middles and legs are sent for curing into ham and bacon.

(h) Curing

Curing is done either by manual or automatic brine injection. The automatic brine injection equipment is not operating due to blocked needles. A tumbler, which could have been used for accelerated curing is also not operating due to a breakdown in its vacuum system and control box. The curing is therefore done manually, by immersing the meat in a tank containing brine solution for five days and matured for another five days in a stillage. This limits production.

(i) Filling, cooking, smoking & packing

Boneless meat constitutes 50 % of the mix in sausages. Other ingredients like portions of fat, spices, flavouring are mechanically minced and mixed with fillers like flour. This mixture is then filled by an automated process into sausages and polonies.

The process of making sausages and polony involves cooking and/or smoking the meat. A variety of sausage and polony products are made by ZAPP. Cocktail sausages are sold fresh and require no cooking; polony and garlic polony comprise of cooked meats; special smoked sausages, garlic sausages and barbecued sausages are both cooked and smoked. Smoking and cooking is done in an Atmos smoke-cooker. Smoke used in smoking meats is generated by burning saw-dust. One batch cycle time takes approximately forty minutes with an output per batch of 800 Kgs. The cured middles and legs are subsequently smoked and sliced into ham and bacon, ready for packing. Ham and bacon are vacuum sealed in heat-sealable and pre-printed polyethylene film imported from South Africa.

2.2 Plant & machinery

Some of the important items of machinery either do not function at all, or are partially operative.

The automatic brine injection device has been inoperative for several months and has slowed down production considerably.

Six cooking pots are inadequate for processing sausages, thereby causing a capacity imbalance. Some more trolleys are required to ensure better usage of the plant capacity.

The poor state of the cold rooms has already been discussed in earlier Chapters (refer to section 3.1.2.[e]).

2.3 Production

Capacity utilisation continues to remain at an unacceptably low level of 30%, primarily because of the following reasons -

- * The Company's inability to increase the procurement of pigs
- * Its inability to raise money to augment its working capital. To a large extent this shortcoming could be overcome by prudent cash management by implementing some of the suggestions given.
- * Poor and weak engineering capability of the organisation to repair and maintain plant and equipment, which can ensure efficient production when raw materials are available.
- * Failure to hold adequate inventory of currently needed and replacement spares, particularly imported spares which require a long lead time to order.
- * Neglect in implementing a planned, preventive maintenance programme for all plant, machinery and equipment.
- * No planned effort has been made to train personnel in production control techniques, material handling and storage, good house keeping, etc.

AKC's Senior Consultant has emphasised the need to recognise these factors, through a series of seminars organised especially for the management and staff of ZAPP.

2.4 Quality control

The Company does not have a quality control laboratory and hence it is not in a position to ensure that a systematic check is made to adhere to quality standards in respect of materials in process and finished products. The present system of control is carried out through an informal check carried out by the Production Superintendent. This arrangement is not satisfactory.

The Zambia Bureau of Standards (ZABS) has not been very effective in setting standards for products or establishing quality control systems as they do not possess adequate laboratory facilities and have not been able to employ qualified and experienced technical staff. "Codex Alimentarius", the FAO/WHO food standards serve as a basis for the Zambian food industry. ZAPP should set up a laboratory and adopt these food standards.

However, a quality analysis of various products of ZAPP and those of its competitor were done by a government laboratory. The comparative study is attached in Appendix XIII.

3.0 MARKETING

The market for pork products in Zambia is shared by -

Twikatane Farm Products, Lusaka	- 45%	market share
Zambia Pork Products SME, Lusaka	- 40%	" "
Others & imports	- 15%	" "

(a) The Marketing Department is headed by a Marketing Manager who was assisted by two Area Sales Managers (ASM). One ASM based in Lusaka covered the Southern Region while the other based in Kitwe used to cover the Northern Region of Zambia till the Kitwe depot was closed down recently.

(b) The Kitwe area office has a depot with cold room facilities. It had a staff of 19, including security staff. It used to cover a large area in the North and North West of Lusaka and served a rich market in the Copper belt. Sales averaged 3 metric tonnes per week. The management, however, decided to close this depot recently as it was found to be unviable.

(c) In Lusaka credit is granted mostly to the military and government institutions from whom payments are unreliable and irregular.

(d) The Lusaka sales office has a total strength of 14 employees:

Area Sales Manager	-1	Clerk (Records)	-1
Salesmen	-3	Clerks (Order Processing)	-3
Clerical Supervisor	-1	Clerk (Billing)	-1
Main Cashier	-1	Cleaners	-2
Billing Cashier	-1		

The number of staff in this office should be reduced. The field sales force should be strengthened to service distributors and retail outlets more effectively.

3.1 Market Penetration

There is good demand locally for ZAPP's products. A substantial portion of production consists of retail sales at the factory (estimated to be 50%). This results in a large flow of traffic into the factory premises, exposing it to security risks and possible collusion between staff and customers, both to the detriment of the Company. The incidences of theft and fraud have risen to alarming levels.

AKC's Senior Consultant recommended that the present building, adjacent to the front compound wall be renovated and converted into a factory retail sales outlet, with access to the public from the road (Old Mumbwa Road) in front of the factory. This outlet may be leased and/or franchised to a selected local distributor. This would eliminate the deployment of Company staff to manage the retail sales activity and significantly reduce the security risks being experienced now.

Measures were taken to widen the Company's customer base. This exercise was felt necessary in order to establish a wider product distribution network, while progressively eliminating trade credit facilities. Advertisements were placed in the local press inviting potential distributors from around the country. The response to these advertisements (copy in Appendix - XI) has been very encouraging. Management at ZAPP is in the process of short listing distributors and making their final selections.

AKC's Senior Consultant was instrumental in initiating these structural reforms as detailed in the next chapter and in Appendices I to VI.

3.2 Promotion of products

Product promotion efforts have till now been restricted to festive seasons. All such promotions are done through advertisements in the local press and on television.

The Company has a refrigerated truck which was used for delivering products to the depot at Kitwe and also to important customers in the large cities. This truck, painted with the Company's slogan on its sides, was an important mode of

advertisement. The truck has been out of service for about two years, due to a major engine breakdown. The management has not taken any steps to get the vehicle repaired, on the plea that funds were not available.

Both the Old Mumbwa Road and Mumbwa Road intersect in front of the factory gate. The high factory walls have attractive slogans painted thereon which have now faded and are covered with dust and dirt. This excellent form of advertising the Company's products could be revived, at little cost. It would not only promote the Company's products, but project a improved corporate image for the Company.

3.3 Pricing

The Marketing Department has been averse to price increases and the curtailment of trade credit to customers. AKC's Senior Consultant impressed on ZAPP's management the need to curtail trade credit as inflation in Zambia stood at 200% p.a. and bank interest rates had risen to 75%, p.a. Steps were taken to restrict trade credit. A review of product costing, pricing and discount structures was undertaken on a priority basis.

This review exercise showed the following:

(a) Review of product costing

(i) Assumptions

Dressing out percentage - 75%

Bone Content - 25%

Average Cold Dressed Weight (CDW) - 65 Kgs.

(ii) Cost of Meat (Lean) & Fat

Price of live pigs	- K 250.00 per kg.
Price of CDW	- K 330.00 per kg.
Price of Lean/Fat meat	- K 450.00 per kg.

(iii) Material cost/kg. of product (in Kwachas)

Product	Process loss	Cost of meat (incl. process loss)	Cost of other raw materials	Cost of packing materials	Total material cost
A. Sausages					
Mukumbi	10%	520	30	130	680
Kariba	10%	410	30	120	560
Vienna	10%	420	30	120	570
SSS	10%	350	40	120	510
B. Polonies					
French	10%	290	60	80	430
Garlic	10%	315	60	125	500
C. Ham & bacon					
Cooked ham	30%	585	30	105	720
Bacon	20%	540	50	100	690

(b) Review of product sale price (Kwachas/Kg.)

Product	Material cost	Overheads	Total cost	Profit	Revised selling price effective 1.12.1992
A. Sausages					
Mukumbi	680	350	1,030	155	1,185
Kariba	560	350	910	135	1,045
Vienna	570	350	920	140	1,060
SSS	510	350	860	130	990
B. Polonies					
French	430	350	780	195	975
Garlic	500	350	850	212	1,062
C. Ham & bacon					
Cooked ham	720	350	1,070	560	1,630
Bacon	690	350	1,040	520	1,560

The following table gives a sample of the pre & post revision prices:

Product	Prices in Kwachas	
	As on November 30, 1992	Revised w.e.f. December 1, 1992
1. <u>Sausages</u>		
Kariba (Bulk)	725 per kg.	1045 per kg.
Special smoked	410 per 500 gms.	595 per 500 gms.
2. <u>Cured & smoked</u>		
Premium bacon	535 per 250 gms.	670 per 250 gms.
Cooked ham	1525 per kg.	1910 per kg.
3. <u>Fresh meat</u>		
Pork chops	715 per kg.	1075 per kg.
Special spare ribs	775 per kg.	1165 per kg.
Back bones	300 per kg.	900 per kg.
Ham bones	145 per kg.	200 per kg.

The revised official price list issued by the Company, effective from December 1, 1992, is detailed in Appendix IX.

Although the average increase in price was over 40% there was no adverse impact on the volume of sales and all products available for sale were disposed off.

4.0 FINANCE

The financial results of the Company for the year ending March 1993 should improve to break-even levels from the K. 4.5 million losses incurred in the previous year. Audited accounts for the years ending March 31, 1988 - 1992 are presented overleaf.

TABLE 1

PROFIT & LOSS ACCOUNT

K'in '000s

Year	1988-89	1989-90	1990-91	1991-92
Turnover in '000 US \$	<u>1,929</u>	<u>1,284</u>	<u>1,651</u>	<u>1,794</u>
Turnover	20,547	53,448	92,404	1,61,676
Cost of production:				
Raw materials	12,656	36,500	57,974	1,09,633
Salaries & wages	598	2,135	3,658	6,440
Depreciation	81	90	216	936
Other expenses (net of income)	1,223	-1,271	3,179	8,249
Cost of production	<u>14,558</u>	<u>37,454</u>	<u>65,027</u>	<u>1,25,258</u>
Gross profit	5,989	15,994	27,377	36,418
Less:				
Administrative expenses:				
Salaries & wages	302	1,987	5,579	9,099
Depreciation	47	90	252	252
Other expenses	2,022	4,995	6,140	13,863
Total administrative expenses	<u>2,371</u>	<u>7,072</u>	<u>11,971</u>	<u>23,214</u>
Selling & distribution expenses:				
Salaries & wages	329	752	2,616	2,787
Depreciation	0	29	48	48
Other expenses	896	3,159	6,219	7,676
Total sales expenses	<u>1,225</u>	<u>3,940</u>	<u>8,883</u>	<u>10,511</u>
	<u>3,596</u>	<u>11,012</u>	<u>20,854</u>	<u>33,725</u>
Profit before interest & tax (PBIT)	2,393	4,982	6,523	2,693
Financial charges	292	2,434	4,306	7,155
Profit before tax (PBT)	<u>2,101</u>	<u>2,548</u>	<u>2,217</u>	<u>-4,462</u>
Sales	20,547	53,448	92,404	1,61,676
Less: PBT	<u>2,101</u>	<u>2,548</u>	<u>2,217</u>	<u>-4,462</u>
Cost of sales	18,446	50,900	90,187	1,66,138
Less: Interest	292	2,434	4,306	7,155
	<u>18,154</u>	<u>48,466</u>	<u>85,881</u>	<u>1,58,983</u>

TABLE 2
BALANCE SHEET

Year	K '000s			
	1988-89	1989-90	1990-91	1991-92
I. Net fixed assets	3,686	67,960	69,486	67,771
A. <u>Current assets</u>				
Stock	3,702	8,812	22,281	23,430
Trade debtors	940	2,045	5,933	13,051
Sundry debtors	1,288	2,172	5,209	5,916
Cash & bank balances	255	724	653	1,980
	6,185	13,753	34,076	44,377
B. <u>Current liabilities</u>				
Bank overdraft	2,835	4,168	14,616	18,500
Trade creditors	433	2,071	9,947	11,462
Sundry creditors	770	2,079	123	89
Provisions & accruals	131	680	4,959	12,510
Taxation and dividend payable	32	64	68	3
	4,201	9,062	29,713	42,564
II. Working capital (WC) (A-B)	1,984	4,691	4,363	1,813
Capital employed (I+II)	5,670	72,651	73,849	69,584
Net worth (Sh. cap + reserves)	3,970	66,651	68,819	64,358

TABLE 3
RATIO ANALYSIS

Year	1988-89	1989-90	1990-91	1991-92
Current ratio	1.47	1.52	1.15	1.04
Liquidity ratio	0.59	0.55	0.40	0.48
Cost of sales/Sales(%)	89.77	95.23	97.60	102.81
Material cost/Sales(%)	61.60	68.29	62.74	67.82
Salary/Sales(%)	5.98	9.12	12.83	11.33
Other expenses/Sales(%)	20.15	12.88	16.82	18.40
Interest/Sales(%)	1.42	4.55	4.66	4.42
PBIT/Sales(%)	11.65	9.32	7.06	1.67
Fixed asset turnover ratio	4.93	0.71	1.24	2.38
Working capital turnover ratio	9.15	10.33	19.68	7.96
Capital turnover ratio	3.20	0.67	1.16	2.32
Raw material turnover ratio	1.62	1.46	1.59	1.48
Fixed assets/Net worth	0.93	1.02	1.01	1.05
% Admin. exp/Turnover	11.54	13.23	12.96	14.35
% Sales exp/Turnover	5.96	7.37	9.61	6.50

TABLE 4

WORKING CAPITAL STATEMENT

K'000s

Year	1986/7	1987/8	1988/9	1989/90	1990/1	1991/2
<u>INCREASE/DECREASE</u>						
Stock	273	1,831	527	5,063	13,468	1,149
Trade debtors	174	233	331	1,104	3,888	7,118
Sundry debtors	-427	104	762	884	3,037	707
Trade creditors	-127	-763	602	-1,637	-7,876	-1,515
Sundry creditors	-347	-240	266	-1,140	1,995	34
Prov./accruals	-224	227	181	-549	-4,279	-7,551
	-678	1,392	2,675	3,725	10,233	-58
<u>Movement liquid funds</u>						
Bank overdraft	-434	-153	-1,376	-1,333	-10,447	-3,884
Bank balances	-8	-40	232	469	-71	1,327
	-442	-193	-1,144	-864	-10,518	-2,557
TOTAL	1,120	1,199	1,531	2,861	-285	-2,615

TABLE 5

LIABILITIES AS ON OCTOBER 31, 1992

(in million Kwachas)

<u>A. TRADE (NOTE 1)</u>		<u>CONDITIONS</u>
PIGS	11.2	14 DAYS AFTER DELIVERY
OTHERS	6.2	30 DAYS. CREDIT
SUB.TOTAL	17.4	
<u>B. STATUTORY</u>		
SALES TAX	10.5	
PAYE	2.8	14TH EVERY MONTH
ZNPF	0.6	MONTHLY
PENSION	1.4	MONTHLY
SUB TOTAL	15.3	
<u>C. LOANS</u>		
CHOMA MILLING	0.6	INCLUSIVE OF INTEREST
INDO (Z) BANK	6.4	INCLUSIVE OF INTEREST
SUB TOTAL	7.0	
<u>D. BANK OVERDRAFT</u>		
ZNCB ACTUAL	11.0	FACILITY (15.0M)
<u>GRAND TOTAL:</u>		
(A+B+C+D)	50.7	

Note 1:

<u>PIGS CREDITORS</u>		<u>OTHER CREDITORS</u>	
CURRENT	6.0	CURRENT	1.0
OVER 30 DAYS	5.2	OVER 30 DAYS	5.2
	11.2		6.2

5.0 HUMAN RESOURCES

5.1. Present organisation structure

(a) The organisation structure at ZAPP is shown in Annexure IV. The Company had a total strength of 151 employees as on November 30, 1992, who were employed as follows:

Function	Number of staff employed	% of work force	
Senior management	7	4.7	} Management and administration
Middle management	8	5.3	
Supervisory	23	15.2	
Technicians	14	9.3	
Clerical	28	18.5	
General	71	47.0	} Labour
Total	151	100.0	

Employee salary structures are based on the pay scales and employment terms of the holding Company - ZIMCO. The various grades of employment and corresponding salary scales are presented in Appendix X.

(b) Senior managers in personnel and food processing at ZAPP have adequate work experience. However, the managers in charge of Finance and Accounts and Marketing do not have sufficient work experience. This contributes to ZAPP's poor performance. A brief resume of key executives at ZAPP is presented overleaf. (The Finance and Accounts Manager has since been replaced with a competent person.)

KEY EXECUTIVES EMPLOYED AT ZAPP

- * Mr. Francis Zaza Simenda
Managing Director
Nationality : Zambian
Age: 46 years
- Post Graduate Diploma in Personnel Management (U.K.)
 - Joined ZAPP as M.D. in March 1989 - Over 20 years experience in Personnel Management
- * Mr. Basil L. Walmsley
Technical Manager
Nationality : British
Age: 63 years
- Advanced certificate in Meat Technology - Holling College, Manchester, U.K.
 - Member Institute of Meat
 - Member Royal Society of Health
 - Member Institute of Works Managers
 - Joined ZAPP in 1974 as Prodn. Manager
 - 1988-To date-Technical Mgr.
 - Over 40 yrs. work experience
- * Mr. Charles Nyimbili
Acting Finance Manager
Nationality : Zambian
Age: 28 years
- Zambian Diploma in Accountancy
 - Part qualified ACCA
 - Worked for Coopers & Lybrand International,
 - Joined ZAPP as Acting Finance Mgr. in April 1993
- * Mr. Eddy Mataa Mwauluka
Marketing Manager
Nationality : Zambian
Age: 47 years
- Diploma in Business Management, School of Accountancy Johannesburg (1970)
 - GCE 'O' Level (1977)
 - Worked with Agricultural Finance Company (1970-84) - 81 to 84 as Provincial Manager
 - Joined ZAPP in 1984 as Accounts Marketing Manager-To date
- * Teddy P.M. Chashi
Factory Engineer
Nationality - Zambian
- Bachelor of Engineering (Mechanical)(1978)
 - 1979-82 - Aircraft Engr.
 - 1982-86 - Maintenance Engr., National Milling Company
 - 1986-88 - Works Engineer - Kapiri Glass
 - 1988-90 - Works Engineer - Blackwood Hodge
 - 1990-91 - Regional Manager, Engg.Service Corp. - Ndola
 - 1991-92 - Associate Consult. - Management Service Board
 - Sept.92 - Joined ZAPP as Factory Engineer

5.2 Training

(a) The Company does not conduct structured training programmes either at the management level or at the workers level. AKC's Senior Consultant stressed the need to develop training programmes, particularly for middle management and supervisory personnel, in finance and accounting, book-keeping, production planning and control, materials management and store keeping, engineering, plant maintenance and quality control.

(b) To highlight the importance of training in specific areas of weakness within the Company's operation, in consultation with the management at ZAPP, AKC's Senior Consultant organised the following three seminars:

(i) TOPIC : IMPROVING THE USE OF CAPITAL RESOURCES

Subjects : (a) Waste reduction and energy conservation programmes
(b) Maintenance improvement
(c) Improving productivity through quality

(ii) TOPIC : MARKETING - BASIC ELEMENTS AREAS COVERED

Subjects : (a) Business plan
(b) Costing & pricing
(c) Distribution
(d) Contact with customers and business letters
(e) Promotion and advertising
(f) Managing sales representatives
(g) Payment & credit

(iii) TOPIC : EFFECTIVE HUMAN RESOURCE MANAGEMENT

Subjects : (a) The role of management
(b) Manpower motivation
(c) Workers participation
(d) Productivity training
(e) Work organisation

The Managing Director and all senior managers participated actively and enthusiastically in these seminars. Each seminar was followed by lively discussions and question-answer sessions.

VI. CONCLUSIONS

1.0 Management and organisation

Several functions are weak in the existing organisation -

- * Finance and accounts
- * Marketing
- * Engineering and maintenance
- * Administration

(a) Finance and accounts

The Finance Manager has not been able to organise his department to ensure the proper maintenance of the books of account and the periodic, on-time submission of management accounts to the Managing Director. Statement of accounts have been in arrears for five months. Theft of money and misappropriation of cash is a common occurrence and no steps have been taken to prevent them.

Negligence by the Finance Manager in the safe keeping of cheques has resulted in the issue of forged cheques and losses of huge sums of money. AKC's Senior Consultant suggested to the Managing Director that urgent steps be taken to replace the Finance Manager with a person who has a proven track record of competent performance. Informal enquiries now reveal that the reputation of the present Finance Manager in all his previous employment were also very uncomplimentary. This suggestion has been accepted and a competent person has since been appointed.

(b) Marketing

The general morale of the department is very low, as leadership is weak. No directions for marketing plans have been given.

The present Marketing Manager has neither any experience in marketing consumer products, distribution and pricing strategies, market research and information gathering techniques nor has he displayed the ability to motivate his subordinates. He has further displayed his lack of interest and unwillingness to accept constructive suggestions from his colleagues. These attitudes were in evidence during the management meetings organised by AKC's Senior Consultant.

The whole department needs to be restructured and reorganised and the present incumbent replaced by a candidate who is a qualified, experienced professional in marketing, preferably in food and consumer products.

The Company should stop the present practice of retailing from the factory premises, which has encouraged unhealthy collusion between the staff and customers leading to the loss of products.

(c) Engineering and maintenance

The Factory Engineer, who joined in September 1992, has the requisite qualifications for this position, but does not have a good supporting team of electrical and mechanical technicians. Management at ZAPP should give priority to the recruiting of technicians who have hands-on shop floor experience in pursuing sound engineering and maintenance practices.

(d) Administration

At present, the Personnel Manager, who has been with ZAPP since 1971, is also in charge of general administration, including security. A number of cases of theft of the Company's property, cash misappropriation, burglary from the executive offices and finished goods stores have been reported. The present security staff consists both of Company's employees and persons provided on contract by a security agency.

AKC's Senior Consultant has recommended that the services of the Company's own security guards should be dispensed with and the entire responsibility of security given to a professional security agency. This would avoid the present conflict of responsibility, which makes it difficult for the management to take decisive disciplinary action.

2.0 Inputs

(a) The availability of pigs on a regular and consistent basis could become a major constraint unless steps are taken by the Government to encourage and motivate pig farmers to increase production.

This can be achieved if the Government will take corrective action to ensure that farmers have easy access to stock feeds at reasonable prices, and containing animal diseases by providing reliable veterinary facilities and services. In addition to this the Government's fiscal policies should provide farmers with soft loans, credit facilities and adequate insurance cover. The banks and financial institutions have ignored this sector. Until the farm sector reinforces and strengthens its productive base, it will need a lot of support and assistance from the Government.

(b) The Company needs to plan ahead and maintain a reasonably adequate inventory of imported items such as casings, spices, and critical spares for plant and machinery.

3.0 Plant & machinery

Two critical areas that need urgent rehabilitation in respect of plant and machinery are the cold rooms & the boiler.

Against the background of the Government's policy to privatise parastatals, the Consultants have suggested that steps be taken to ensure that the Company's operating efficiency is improved such that it is financially attractive to prospective investors. Rehabilitation activities at ZAPP should therefore be contained to those areas that are critical to the Company's uninterrupted and efficient working.

The Ministry of Commerce, Trade and Industry have indicated that the Arab Bank for the Economic Development of Africa (ABDEA) may extend financial aid to Zambia for such rehabilitation work. In consultation with companies specialised in refrigeration and the assistance of a technical team at ZAPP, AKC's Senior Consultant prepared a detailed proposal for the rehabilitation of the cold rooms. This was submitted to the Managing Director of ZAPP to enable him to approach the Ministry of Commerce, Trade and Industry to seek the required financial assistance. A copy of the letter dated January 13, 1993 to the Managing Director in this regard is attached in Appendix VII.

4.0 Quality control & hygiene

(a) The Company does not have an organised quality control system at present. To facilitate this a laboratory should be installed immediately. A detailed plan to establish a quality control laboratory should be drawn up, including details of personnel to be hired, list of equipment and services needed and a realistic cost estimate. Armed with these details, the Company can seek the support and assistance of one of the aid agencies, in Zambia. UNIDO can also give the Company the guidance required.

(b) There is much to be desired in the cleanliness of the shop-floor, processing areas and the cold rooms. The floors are not washed with disinfectants regularly and the process area is swarming with flies as most of the insect repellent lamps are not functional. Workers on the mixing machines and sausage machines are not provided with disposable gloves and protective caps. This could pose a serious health hazard and remedial action should be taken immediately.

5.0 Board of Directors

In March 1989, Zambia Pork Products SME was chosen by the government as one of the two Zambian companies to pioneer the concept of self management in the country. Based on this concept, a new Board was constituted consisting of five members. Three members were elected by the employees, one member each was nominated by the Union and the Ministry of Labour. The Managing Director is an Ex-officio member of the board of Directors. Mr. Davies Luka Galapa, the Area Sales Manager, Northern Region is the Chairman elected by the Board. The other members of the Board are -

Mr. Ronex Rabi Mtonga - Asst. Director, Ministry of Labour
Mr. Martin M. Sibeta - Farm Liaison Officer
Mr. Stephen Bandawe Mhango - Electrical Superintendent
Mr. Douglas Mulenga - Refrigeration Attendant
(Union representative)

The union representative on the Board of Directors is presently under detention for theft.

In today's competitive business environment, the Company needs the guidance of a Board which is dynamic, entrepreneurial and experienced in dealing with complex financial and commercial problems confronting the Company. The world has in the recent past witnessed the complete collapse of the socialistic approach to running an economy and the heavy cost being incurred towards its reconstruction. The management at ZAPP is experiencing the consequences of a similar situation. The present Board is clearly not qualified to deal with the complexities of today's competitive business environment, leave alone its ability to formulate long term strategies and plans for the Company, designed towards its progressive growth and prosperity.

AKC's Senior Consultant would recommend that necessary constitutional means be found to dismantle the present Board of Directors at the earliest possible moment, dispense with the concept of SME and concurrently appoint a new Board comprising of individuals chosen from industry, business, customers and financial institutions to guide and direct the Company on constructive lines.

ACKNOWLEDGEMENTS

There are a few persons whose unstinted support throughout the course of the diagnostic study has been of immense value, without which it would not have been possible to complete the study within the prescribed time scheme. We wish to place on record the services rendered by:

Mr. F.Z. Simenda - Managing Director and

Mr. B.L. Walmsley - Technical Manager

Our gratitude is also due to the members of staff and workers of Zambia Pork Products SME, who gave their time and assistance, when required.

Our sincere appreciation, for the continuous guidance and encouragement given by the UNIDO Country Director, Dr. Earle A.S. Taylor.

Grateful thanks are due to many of the officials in Government and in financial institutions, whose cooperation and assistance has contributed significantly in compiling information required for the preparation of this report.

July, 1993


AMARNATH KAMATH & CO.

ANNEXURES

LIST OF ANNEXURES

	PAGE NO.
I. LIST OF PRINCIPAL ORGANISATIONS, COMPANIES & PERSONS CONTACTED	1
II. PRODUCTION SECTION - FLOW SHEET	3
III. SME ORGANISATION CHART	5
IV. ZAPP ORGANISATION CHART	6

ANNEXURE-ILIST OF PRINCIPAL ORGANISATIONS, COMPANIES AND PERSONS CONTACTED
BY MESSRS. AMARNATH KAMATH & CO.

Organisation/Company	Person(s) met
Ministry of Commerce & Industry	Mr. Listard E. Chambuli Banda, Deputy Director, Industry Department
	Mr. D.M. Mauzu, Economist, Ministry of Commerce & Industry
	Mr. Francis Chilusya Chipimo, Economist
Zambia Pork Products Ltd.	Mr. F.Z. Simenda, Managing Director
	Mr. B.L. Walmsley, Technical Manager
	Mr. R.L. Mitra, Finance Manager
	Mr. Charles Nyimbili Finance Manager
	Mr. W. Kunda, Asst. Production Manager
	Mr. S.B.C. Mutinta, Production Supervisor/Quality Controller
	Mr. T.A.M. Chashi, Factory Engineer
	Mr. M.M. Sibeta, Farm Liaison Officer
	Mr. E. Masumbu, Financial Accountant
	Mr. J.K.S. Nyimba, Personnel Manager
	Mr. E.M. Mwauluka, Marketing Manager
Mrs. S.K. Mukosa, Area Sales Manager (South)	
Mr. D.L. Galapa, Area Sales Manager (North)	

ANNEXURE-I (2)

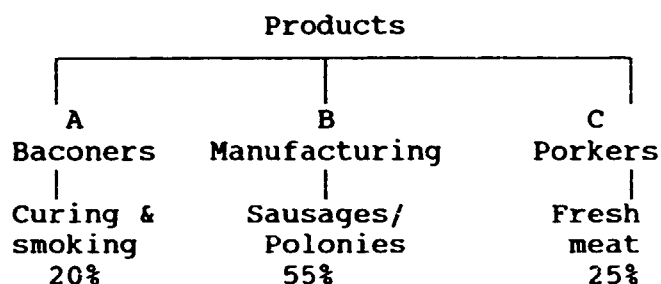
Indeco Limited	Mr. K.C. Mubita, General Manager - Economic Evaluation and Corporate Planning
U N D P	Mr. Onder Yucer, Resident Representative, Lusaka
UNIDO	Dr. Earle A.S. Taylor, Country Director, Zambia
	Mr. Winston Mutale, National Expert Rural Industry Development Project
	Mr. K.D. Jorgensen, Programme Officer
F A O	Mr. Bjarne Thomsen, Programme Officer
	Mr. Genaro J. Clemor, Management Information System Advisor, Lusaka
	Mr. Manohar Subramaniam, Chief Technical Adviser
	Prof. Ben Kiregyera, Agricultural Statistician
Department of Census & Statistics	Mr. Christopher J. Chitalima, Statistician
Zambia Confederation of Ind. and Chambers of Commerce	Mr. Bernard Chisanga, Chief Executive
Zambia Privatisation Agency	Mr. S.C. Mwamba, Acting Deputy Director
	Mr. S. Syamuleya, Administration and Secretarial
Indo Zambia Bank Ltd.	Mr. S.R. Krishnan, Managing Director
Bank of Zambia	Mr. Godfrey Mbulo, General Manager
I L O	Mr. S. Odero - Oteng, Regional Vocational Training Adviser
Office of the President	Hon. Dean N. Mung'omba, MP, Deputy Minister, Planning & Development Corpn.

PRODUCTION SECTION - FLOW SHEET

1. Pig reception: Pigs are usually delivered by road though some may be received by rail. The Company also collects pigs from farms. Payment is made on live weight/cold dressed weight.
2. Stunning and killing: Installed capacity is approximately 40 pigs per hour.
3. Scalding and dehairing: Slaughtered pigs pass through the scalding tank which is maintained at an approximate temp. of 165 degrees Fahrenheit. They are kept in the tank for approximately 2 to 3 minutes. The dehairing machine automatically removes hair scaling and dirt on skin.
4. Singeing and evisceration: After dehairing, the pigs are automatically hoisted on to the overhead rail and are then manually singed to remove hair which has not been removed by the dehairing machine. Manual evisceration of intestines and internal organs is completed in this operation.
5. Weighing: Pigs are weighed after removing their liver, heart, lungs, oesophagus and trachea (known as pluck). The recorded weight at this stage is known as the hot dressed weight.
6. Inspection and grading: Pigs are inspected & graded by public health officials. After inspection, only the approved pigs are put into the carcass chilling room.
7. Overnight chilling: The carcass is kept at a temperature of 0 degrees Celsius or 32 degrees Fahrenheit.

ANNEXURE-II (2)8. Processing of pigs

Budgeted production mix



Pigs which have not been transferred for processing are held in the freezer holding room, until required. Curing & smoking is basically a two week cycle. Meat from manufacturing pigs and cheaper cuts from baconers are processed into sausages which is a one day operation. Fresh meat from cuts not required for curing/smoking as also heavy pigs are sold in bulk or pre-packed form. Porkers are not preferred as it is uneconomical to process them and the whole pig is suitable for fresh meat sale only.

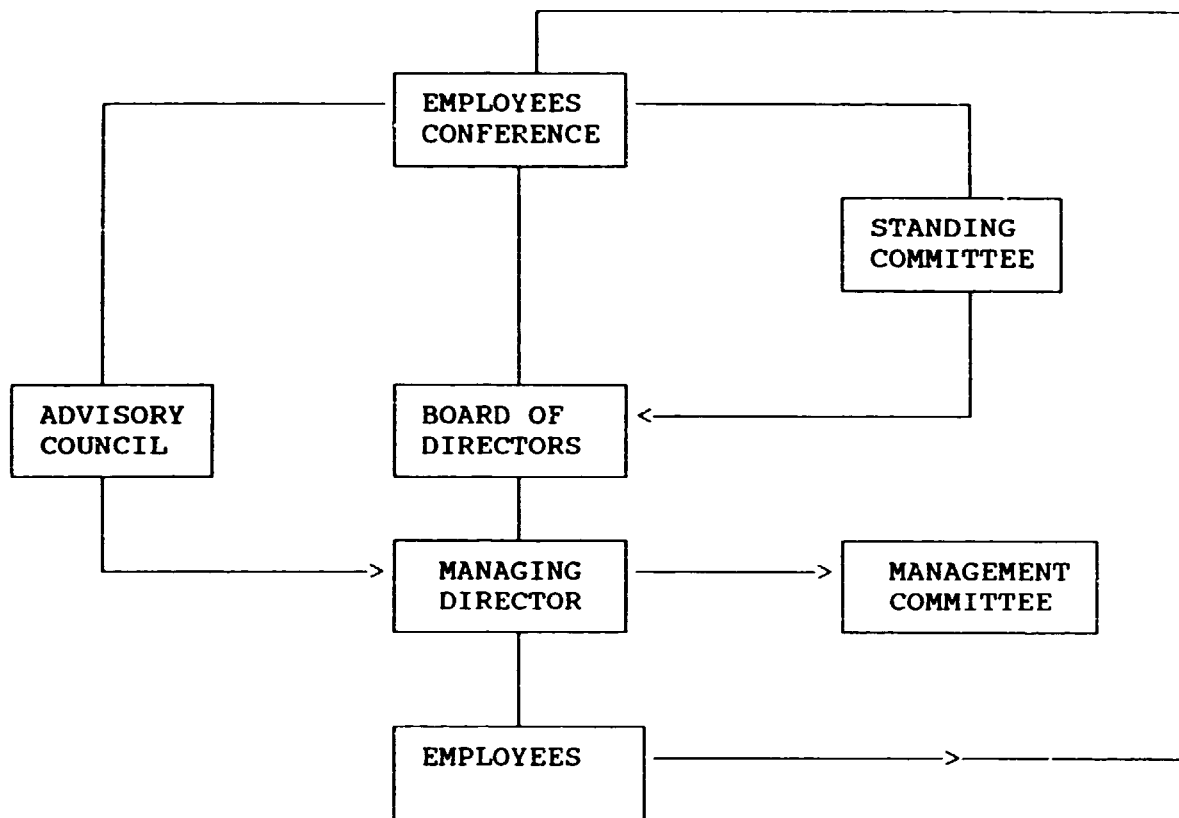
9. Transfers to despatch: Fresh meat, prior to sale, is usually held in the production cold rooms (low temperature). Process meats (sausages, bacons), hams, polonies, etc. are held in the despatch cold rooms. A small percentage of fresh meat and fat is transferred to the kitchen. Deliveries to KITWE depot & up country mobile sales are by refrigerated truck or by insulated vehicles, with ice blocks. Local deliveries are by non-refrigerated transport.

MANPOWER IN PRODUCTION DEPARTMENT

Production staff	- 5	Spice room	- 1
Farm liaison & pig reception	- 3	Small goods	- 20
Killing/cutting	- 14	Cleaning	- 5
Curing	- 2	Temporary	- 5
Pre-packs	- 3	TOTAL	- 58

ANNEXURE III

ZAPP SME ORGANISATION CHART



APPENDICES

LIST OF APPENDICES

	PAGE NO.
I. MINUTES OF THE MEETING HELD ON NOVEMBER 25, 1992	1
II. MINUTES OF THE MEETING HELD ON DECEMBER 1, 1992	5
III. MINUTES OF THE MEETING HELD ON DECEMBER 2, 1992	9
IV. MINUTES OF THE MEETING HELD ON DECEMBER 5, 1992	14
V. COPY OF LETTER DT. DECEMBER 15, 1992	15
VI. COPY OF LETTER DT. DECEMBER 22, 1992	17
VII. COPY OF LETTER DT. JANUARY 13, 1993	18
VIII. LIST OF COMMERCIAL & SMALL SCALE FARMERS	19
IX. EX-FACTORY PRICE LIST W.E.F. DECEMBER 1, 1992	22
X. JOB EVALUATION	26
XI. COPY OF ADVERTISEMENTS RELEASED	28
XII. COPY OF THE LETTER ADDRESSED TO THE MINISTER OF AGRICULTURE, FOOD & FISHERIES BY THE LOCAL MANUFACTURERS	29
XIII. SAMPLE ANALYSIS REPORT	31

Appendix IMINUTES OF THE MEETING HELD IN THE MANAGING DIRECTOR'S
OFFICE ON WEDNESDAY, NOVEMBER 25, 1992 RELATING TO AREAS OF
REVIEW UNDER MARKETING FUNCTION

PRESENT : Mr. F.Z. Simenda - Managing Director
Mr. V. Kumar - UNIDO Consultant
Mr. E.M. Mwauluka - Marketing Manager
Mr. R.L. Mitra - Finance Manager
Mr. B.L. Walmsley - Technical Manager

The meeting was declared open at 09.30 hours.

The Managing Director opened the meeting by introducing the UNIDO Consultant, Mr. V. Kumar, to the members present and explained that the purpose of Mr. Kumar's stay of approximately two months with the Company was to carry out a complete survey of ZAPP SME's operations as ZAPP had been selected as one of the two Zambian Companies for rehabilitation study.

Mr. Kumar's area of review under 'MARKETING FUNCTION' comprises the following twelve main points:

1. MARKET DESCRIPTION

Mr. Kumar stated that the most vital aspect of any Company's operations was Marketing. This can be described as the hub of the wheel and it is essential that the Marketing Manager be in full command of the overall situation, on a daily basis. Marketing is not to be confused with Sales. Marketing being the development of the Company's business, creating guideline strategies and assessing the market potential and competitors strengths and weaknesses. Sales is the functional part of the Marketing Department.

It was agreed at this stage that a display/tasting panel be organised as soon as possible with all the main competitors' product lines being exhibited alongside those of ZAPP.

2. AGGREGATE MARKET DEMAND

At this stage, Mr. Kumar enlarged upon market demand, incorporating the need for past data to be readily available relating to total consumption region wise and user wise; data on products that are in seasonal demand and flexibility of demand. It was agreed that it is of prime importance that such data be used when forecasting future sales and production requirements.

3. MARKET SUPPLY

At this stage it was emphasised that the Marketing Section must have up-to-date information on competitors, their products, their capacities and their strengths and weaknesses.

4. MARKET SHARE - COMPETITIVE ADVANTAGE OF UNIT

In response to Mr. Kumar's question about the market share of ZAPP in the Zambian market, the Marketing Manager stated that it was difficult to ascertain the same as it would entail a detailed survey. It was stated that of the current 20% plus market share, 80% was bulk and 20% retail. In order to encourage cash payment for bulk buying, a carefully controlled discount programme could be implemented and in order to retain or even expand on the retail purchases the offering of alternative products should be looked into.

In view of the low current off take it was suggested that all products be sold in the Lusaka area, but the Marketing Manager stated that certain product lines could only be sold outside Lusaka area and that the current off take position out of the 20% throughput/off take was 12% Lusaka, Kabwe and Livingstone sales and 8% Copperbelt.

5. PRODUCT PROFILE

It was emphasised that good presentation of product lines was an essential component of marketing strategy and that everything possible should be done to improve the Company's image in this direction. Sales of a Company's products can be either adversely affected or promoted according to the emphasis placed on good presentation.

6. PRICING

A past history of ZAPP's problems would suggest underpricing of products. It was emphasised that realistic costing must be implemented at all times with the application of replacement cost of ingredients. Marginal costing should be adopted, wherever possible and reviews should take place on a quarterly basis. At the beginning of each quarter re-negotiated discount rates should be implemented for bulk buying customers, but retail purchasers should be subject to list prices only.

7. CUSTOMER PROFILE

It was felt that this aspect had already been dealt with under product profile discussions.

8. EXPORT POSSIBILITIES

Although current throughput/off take figures could not support an export programme, it was emphasised that future forecasting will include the Export Market as a vital factor in the Company's operations. In fact, if the Company was in a position to maintain an export market at present, the current foreign currency exchange rates were very favourable to ZAPP.

9. THREATS FROM IMPORTS

This was discussed in the light of the current threat from imported meat products entering Zambia from a neighbouring country, under unfavourable conditions for local processors and producers.

In view of the seriousness of the situation it was emphasised that every effort should be made to bring the current situation to the attention of the relevant Government Ministries and clarifications obtained on the present Government Policy on protection of local industries.

10. DISTRIBUTION OF SALES

After discussing the Company's problems on transport and the under utilisation of Kitwe Depot which was resulting in its running at a loss, the Managing Director and the UNIDO Consultant agreed to visit the Depot on Saturday, December 5, 1992, to inspect and evaluate its potential as a viable unit.

11. SALES RELATED DATA

It was agreed that ZAPP's failure to expand its range of sales had created a stranglehold position whereby it was being virtually held to ransom. It was essential to encourage new clientele with the emphasis being on bulk customers.

While accepting new clientele it was suggested that they be encouraged to place a deposit with the Company before a credit facility to the extent of the deposit was granted to them.

In order to encourage the emergence of new clientele, it was recommended and approved that an advertisement be placed in the newspapers on Monday, November 30, 1992 and Wednesday, December 11, 1992 requesting potential agents to contact ZAPP SME. At this point, the question of debtors arose and a figure of K14.5m was quoted as being the total monies outstanding. However, age wise breakup of this figure was not available. It was agreed that this should be looked into as soon as possible in order (a) to improve collections, (b) stop issue of products to parties who delay payments and (c) to black list customers who fail to honour their outstandings.

It was again stressed that credit facilities should only be extended to proven reliable customers in order that overdraft facility is kept to a minimum in view of the extremely high rate of interest being charged.

12. MARKET STRATEGIES

Although marketing strategies had entered into much of the previous discussions it was essential to emphasise certain key issues which can be listed as follows:

i. The product mix should be adhered to as closely as possible in order to cater for budgeted market demand. Any radical changes in product mix should only be as a result of a change in product demand as indicated by Marketing Department and by Management's awareness of how such a change can affect the turnover and profitability factors.

ii. Close coordination between Marketing and Production is very essential and whilst forecasting is an essential factor in marketing strategy it must have a reasonable degree of accuracy in order that Production Planning can be capably effected.

iii. Effective Quality Control implementation is a vital factor in maintaining a high standard of product and achieving a high degree of market competitiveness. Tasting panels involving all major competitors products should be a regular feature on the Company's agenda.

iv. The procurement of the right type of pigs to ensure achievement of the budgeted production mix is essential. In order to achieve accuracy in costing it was recommended that procurement of pigs on a cold dressed weight basis should be the Company's primary objective. It is also essential that the correct overhead figure to be applied for costing purposes be readily available each time a pricing review is underway. The reliability or otherwise of the overhead figure has a very important bearing on the accuracy of the Product Costing.

The Meeting closed at 12.50 hours.

Appendix IIMINUTES OF THE MEETING HELD ON NOVEMBER 30 AND
DECEMBER 1, 1992, AT 10.00 A.M. FOR REVIEW OF
PRODUCTION AND MAINTENANCE

PRESENT :	Mr. F.Z. Simenda	- Managing Director
	Mr. R. Mitra	- Finance Manager
	Mr. B.L. Walmsley	- Technical Manager
	Mr. S.B.C. Mutinta	- Production Suptd./ Quality Controller
	Mr. T.A.M. Chashi	- Factory Engineer
	Mr. W. Kunda	- Asst. Prodn. Manager
	Mr. M.M. Sibeta	- Farm Liaison Officer
	Mr. C.R. Seetharam	- UNIDO Consultant
	Mr. V. Kumar	- UNIDO Consultant
	Mr. E.M. Mwauluka	- Marketing Manager
	Mrs. S.K. Mukosa	- Area Sales Manager
	Mr. E. Masumbu	- Financial Accountant

The meeting was declared open at 10.00 Hours. Mr. Kumar gave a brief background on the project.

The meeting had the following objectives:

- * To identify problem areas for each of the departments
- * Select problem areas which do not require major investment
- * Set targets for job completion.

The meeting dealt with the various problems being faced by the unit.

1. It first discussed the problems with raw material availability.

The main suppliers of raw materials are:

Sl. no.	Suppliers	Prodn. pigs/wk	Supplied to ZAPP Pigs/wk	
1.	Kalangwa Estates	Lusaka	80	30
2.	Leeward Acres	Lusaka	80	25
3.	Muyeko Farms	Lusaka	30	20
4.	Shelley Farms	Lusaka	60	40
5.	A.J. Park	Mazabuka	40	40
6.	KSH Farms	Chingola	35	35
7.	Arnautovic	Mukushi	20	20
8.	Clayton Farm	Mukushi	10	10
9.	Nkumba Piggery	Lusaka	100	-
10.	Kafue Farm	Kafue	40	-
11.	Trotover Farm	Lusaka	30	-
12.	Livingstone Farms	L/Stone Area	20	-
13.	Kabwe Farmers	Kabwe Area	10	-
14.	Copperbelt area		10	-
15.	Other areas of Zambia		30	2
			595	222

2. The major problem in getting a higher share of the supply of pigs was found to be the non payment of cash to the farmers, in time. 5 other large buyers were able to compete effectively because of their better cash position.

3. Major maintenance problems connected with inefficient production operations were discussed and a list of maintenance jobs made.

4. The Production Manager agreed to give a list of surplus equipment available for disposal, by December 15.

5. The Production Department was asked to improve reporting of machine breakdowns and give follow-up reports. Both Finance Manager and Managing Director agreed that adequate funds would be released for speedy repairs of machines and procurement of spares.

6. It was pointed out that process loss had gradually increased from 7% to 20%. This required to be investigated, immediately. It was felt that pilferage and poor reporting systems could be the reasons for this loss.

7. The meeting was informed that the total production capacity on 20 days/month, single shift basis was 240 tonnes. The budgeted figure was 35%, i.e. 80 tonnes per month. Actual achieved was lower at 20-25%, i.e. 48 - 50 tonnes per month.

8. Major problem areas for marketing were listed.

Action to be taken - For/By Marketing Department

1. As collection from debtors was a problem which in turn affected raw material procurement the Market Collection has to pick up. It was suggested that a daily report be made to Managing Director on debt collection.

2. The marketing of products in Lusaka and outskirts and upcountry areas are to be handed over to Agents/Distributors. Advertisements had been released. Appointments to be completed by December 15. Handing over of cash sales counter to outside agencies at factory was also considered.

3. Major product sales are as follows:

	Budget	Actual
* Cured & smoked meat	20%	81%
* Sausage manufacture	55%	50%
* Fresh meat	25%	40-42%

The basic, per Kg. prices are as follows:

* Sausages	K 750 + 20% tax = K 900
* Meat	More than K 1000
Bacon (60%)	K 1345
Ham (40%)	K 1380

4. The main problems in achieving higher sales of smoked and cured meat are:

- * Poor packaging of smoked and cured meat
- * Very small customer base at present
- * Sales counters do not want to keep slow moving products due to limited shelf life.

5. Analysis of competition

Name/Location	Products	Shifts Opn.	Capacity Month Tons/mth	Actual Processed
Twikatane/Lusaka	Beef, pork Sausages	3/6 days Week	124	124
Luscold/Lusaka	Beef, pork	1/5	39	30
Kyindu/Lusaka	Beef, pork	1/5	-	30
Buccaneer Products/ Lusaka	Sausages, Meat	1/5	65	60
King Farms/Lusaka		1/5	26	20
Incaat/Lusaka	Pork, Beef		10	10
Zambia Cold Storage/ Lusaka			-	-
Others in Lusaka	(fresh meat)		5	5
DCM/Kitwe			10	10
ZCCM/Kitwe, Chingola			5	2
Lyons Brooke Bond/Ndola			5	2
Copper Harvest/Ndola			5	2
Other upcountry - only small butchers - no estimate				
				295

NOTE : A. Most of the farms are processing fresh meat and the total includes Beef being processed and sold as fresh meat. Total meat sales from organised sector including ZAPP comes to 295 + 45 = 340 tonnes per month.

B. Maximum possible sales of pork products based on availability of pigs are:

2400 pigs/month x 65 kgs/pig x 80% yield/pig x 80% final product yield = 100 tonnes/month

6. Marketing Department has to check up the actual despatches of competitors and rationalise the discrepancy. Similarly Farm Liaison Officer will as check the off take of pigs.

TARGETS FOR FACTORY ENGINEER

A C T I V I T Y	Target date
A Disband the car maintenance team and redeploy in the plant. Fitter hands who are not useful may not be retained	07.12.92
B Do a complete analysis of the leakages in the steam pipes. All open insulations should be checked. Plan for steam pipe repairs and insulation. Work out piping requirements for steam and condensate returns to boiler	09.12.92
C Complete analysis of refrigeration system leakages & give a plan for complete blocking of leakages. Checking all doors for proper sealing	11.12.92
D Give a list of motors without starters and give an urgent requisition for fitting the starters	04.12.92
E Give a work plan to change the insulation in the cold rooms	04.12.92
F Downtime analysis of major equipment	09.12.92
G Breakdown of Brine injection unit. Ascertain cost of repairs - cost of control valve	04.12.92
H Release slicer for production. Estimate cost of repair of blades	
ALL THE ABOVE WOULD REQUIRE A FINANCIAL ESTIMATE	04.12.92

Appendix IIIMINUTES OF THE FINANCE AND ADMINISTRATION AND PERSONNEL HEADS
MEETING WITH THE UNIDO CONSULTANTS AT ZAPP SME FACTORY
ON DECEMBER 2, 1992.

<u>PRESENT</u> :	Mr. F.Z. Simenda	- Managing Director
	Mr. R. Mitra	- Finance Manager
	Mr. B.L. Walmsley	- Technical Manager
	Mr. J.S.K. Nyimba	- Act. Personnel Manager
	Mr. V. Kumar	- UNIDO Consultant
	Mr. C.R. Seetharam	- UNIDO Consultant
	Mr. E. Masumbu	- Accountant (Secretary)

The meeting was opened by the Managing Director at 10.00 hrs. Mr. Kumar of UNIDO mentioned that the meeting was called to review the functions of the Finance and Administration departments. Based on the discussions of the meeting the financial constraints would be sorted out and remedial measures suggested.

AREAS OF REVIEW1. PROFIT AND LOSS:

The Finance Manager placed the Profit and Loss statements for the past five years before the meeting. The meeting resolved that as the accounts are reported in Kwacha a conversion to Dollar at the rate ruling on March 31, each year could be made. The Profit and Loss statement is shown in Table - 1. Mr. Kumar suggested that Marginal Costing (Sales less variable cost) should be used for monthly reporting.

The Finance Manager presented the information analysed into fixed cost and variable cost. But the information was not analysed product wise.

The meeting heard that the accounts are five months in arrears due to shortage of staff. The fixed costs and variable costs are shown in Table - 2.

2. CASH AND FUND FLOW ANALYSIS:

Mr. Kumar recommended a system of daily cash reporting. The report should be given to the Managing Director the next morning. Also, surprise cash audit was suggested to help control cash leakage.

Table - 3 shows a specimen of the daily cash collections. It was suggested that the system of the Cashier reporting to the Marketing Manager be changed and instead he should report to the Finance Manager.

The Finance Manager told the meeting that on an average the daily cash sales were of the order of approx. K 250,000. The meeting was told that a Cashier from Accounts Department had to collect the money from the factory at Mumbwa road every day.

The UNIDO Consultant recommended a system of banking cash, twice a day. Also, daily cash audit on the collections has to be done.

The UNIDO Consultant emphasised the need to locate the Finance and Accounts Department at the Head Office so as to enable the top management to monitor its activities on a continuous basis. The present arrangement of the Finance & Accounts Department operating from the City centre at Cha Cha Cha road, approximately 2.5 km. from the Head Office/Factory did not permit the tight control of cash collection and bank deposits, leading to frequent cash fraud. The communication between the Head Office and the Finance Department was extremely poor and there was very weak interaction with the Production Department.

Consequently, the Product Costing was out-dated and did not reflect the true costs of the various inputs which were considerably higher. As a direct result of this, the sale prices also appeared to have been fixed on an unrealistic basis.

It was also observed that the monthly accounts were in arrears from June 92. Against this back-ground, it was recommended that the Finance & Accounts Department be moved to Head Office, in close proximity to the Managing Director's Office as expeditiously as possible.

3. BALANCE SHEET:

The market values for factory, ware-house and Kitwe depot were not available from the Finance Manager & hence it was difficult to ascertain the realisable values, for these buildings.

4. DETAILS OF ASSETS/LIABILITIES:

The average analysis of debtors is shown in Table - 5. The liabilities are analysed into Trade (pig/beef), Statutory, Loans and Bank overdraft.

On the higher debtors figures, Mr. Kumar recommended that a letter be written to the Ministry of Defence to clear off long outstanding invoices. It was suggested that no supplies should be made to them until the outstanding debts are cleared.

5. MANAGEMENT REPORTS

It was suggested that a monthly management report be given to the Managing Director on the 10th of each month.

6. CAPITALISATION POLICIES The Company Policy is to capitalise all major repairs.

7. KITWE DEPOT

The Managing Director and the UNIDO Consultants visited the Kitwe Depot and informed the meeting that the depot has the potential to sell 10 tonnes per week. It was suggested to increase supplies to Kitwe to enable them to reach full potential.

8. PRODUCT COSTING

The Finance Manager was told to prepare product costing for each product mix based on production of 40 tonnes. It was also recommended that the Production manager and the Financial Accountant should monitor the weighing of carcass at every stage to determine the weight of each product mix.

Table - 1 Profit and loss account for the year ended March 31

	1987		1988		1989	
	K'M	Wt. (Kgs)	K'M	Wt. (Kgs)	K'M	Wt. (Kgs)
Turnover	7.9	-	10.5	408,000	20.5	635,000
Profit	(2.1)		.39		2.1	
Tax/equity levy	.032		.03		.03	
Profit after tax	.24		.36		2.1	

	1990		1991		1992	
	K'M	Wt. (Kgs)	K'M	Wt. (Kgs)	K'M	Wt. (Kgs)
Turnover	53.4	656,000	92.4	720,000	162.0	-
Profit	2.5		2.2		-	-
Tax/equity levy	.03		.03		-	-
Profit after tax	2.5		2.2		.03	

Table - 2**Fixed cost per month****Variable cost per month**

	K'M		K'M
Security	0.32	Raw materials &	
Leasing (care)	0.40	Packaging	(NB: 70%
Services combined	0.15	- average 11.1m	Turnover)
Meat inspection	0.13		
Water/sewerage	0.64		
Rent-staff	0.45	<u>UTILITIES</u>	
Insurance	0.18	Electricity	0.50
Printing	0.20	Motor vehicles	0.50
Staff welfare	0.25	Transport	0.55
P.T.C.	0.28	Fuel	1.00
Depreciation	0.40	Repairs	0.15
Finance charges	1.05	Casings	0.15
Salaries/wages	4.06		
Total	9.04		2.90

Table - 3 Balance Sheet as at March 31

	1987		1988		1989		1990		1991	
	K'M	\$'000	K'M	\$'000	K'M	\$'000	K'M	\$'000	K'M	\$'000
<u>Capital employed</u>										
Fixed assets	2.22	144	2.43	295	3.6	338	67.9	1631	69.4	1240
Net current assets	(.68)	(44)	.55	67	1.9	178	4.6	110	4.3	77
	1.54	100	2.98	362	5.5	516	72.6	1741	73.8	1317
<u>Financed by</u>										
Share capital	2.15	139	2.15	262	2.15	201	2.15	52	2.15	38
Reserves	(.60)	(39)	(.25)	(30)	1.8	165	64.4	1545	66.6	1190
Long term loans			1.07	130	1.6	150	6.0	144	5.0	89
	1.54	100	2.97	362	5.55	516	72.6	1741	73.8	1317
<u>US \$ Rate</u>	8.889		8.2215		10.6510		41.6215		55.9680	

NOTE1992 BANK RATES: 1 US \$

DATE	KWACHA	COMMENTS
31 March 92	K137-45	Official rate
30 Nov. 92	290-00	Official rate
30 Nov. 92	340-00	Bureau rate
1 Dec. 92	340-00	Market rate
		(Bureau and Official rates merged with effect from 1 Dec. 1992)

Table - 5 Liabilities as on October 30, 1992

A.	<u>TRADE (SEE NOTE)</u>	<u>K'M</u>	<u>CONDITIONS</u>
	Pigs	11.2	14 days after delivery
	Others	6.2	30 days credit
	Sub. total	17.4	
B.	<u>STATUTORY</u>		
	Sales tax	10.5	
	PAYE	2.79	14th every month
	ZNPF	.617	Monthly
	Pension	1.387	Monthly
	Sub. total	15.3	
C.	<u>LOANS</u>		
	Choma Milling	.625	Inclusive of interest
	Indo (Z) Bank	6.4	Inclusive of Interest
	Sub. total	7.0	
D.	<u>BANK OVERDRAFT</u>		
	ZNCB Actual	11.0	Facility (15.0M)
	Grand total (A + B + C + D)	50.73	

NOTE

Pigs creditors

Current	6.0
Over 30 days	5.2
	11.2

Other creditors

Current	1.0
Over 30 days	5.2
	6.2

Table - 6 Ratio analysis

Year	1987	1988	1989	1990	1991	1992
Fixed asset turnover	28.10%	22.8%	17.56%	127.15%	75 %	
Stock turnover	16.5 %	29.5%	18.05%	16.48%	24.03%	
Debtors turnover	5.1 %	5.7%	4.4 %	3.75%	6.4 %	
Current ratio	1.16:1	.75:1	1.45:1	1.51:1	1.15:1	
Percentage of stock To current assets	62 %	72 %	61 %	64 %	65 %	
Earning per share	.11n	.17n	.98n	1.16n	1.02n	
Pig prices as at 31 March		K11.19n	K25.76n	K48.07n	K73.18n	K120.48n

NB. The higher turnover ratio in 1990 was due to revaluation of Fixed Assets

Appendix IVMINUTES OF THE MEETING HELD AT KITWE DEPOT OF ZAPP
ON DECEMBER 5, 1992

PRESENT : Mr. F.Z. Simenda - Managing Director
 Mr. Vijay Kumar - UNIDO Consultant
 Mr. C.R. Seetharam - UNIDO Consultant
 Mr. D. L. Galapa - Area Sales Manager (N)
 Mr. D. Lungu - Sales representative

1. The Kitwe Depot covers a large area in the North and North West of Lusaka. The main towns covered are Kitwe, Ndola (65 Kms), Luanshya (40 Kms), Kalulushi (15 Km), Chambeshi (15 Kms), Mufulira (35 Kms), Chingola (40 Km), Chililabombwe (45 Km). Due to lack of transport facilities the North-Eastern towns have still not been fully covered.

2. Average sales at the depot, whenever stocks are available, are approximately 3 tonnes per week. With proper coverage and sufficient stocks in the godown the depot staff is confident of attaining a target of 10 tonnes per week.

3. Products sold at Kitwe have a 5% mark-up over Lusaka prices to cover the godown overheads, transportation costs and storage costs. The consultants felt that the mark-up was low considering the high overheads of the depot.

4. The average monthly sales of the depot are 8 to 10 million Kwacha. At 5% surcharge they amount to only K 400,000 per month. The transportation cost on hired vans/trucks itself is more than K 500,000, salaries and wages (including allowances) account for K 130,000 and electricity, water, fuel, spares, etc. are approx. K 150,000 per month. It was agreed that the total costs of Kitwe Depot required to be reassessed again and the mark-up increased to cover all expenses.

5. The depot has four cold rooms. Only two cold rooms were in operation. Considering the present sales of 3 tonnes per week it was suggested that only one cold room be operated which can handle storage of upto 3 tonnes. The compressors have been cannibalised for maintaining the other two compressors. The refrigerant cold lines are not insulated and results in inefficient cooling. It was suggested that these pipes be insulated immediately.

6. The number of people working in the Depot was 19 which had been brought down from 35 in 1991. The number was still considered high for the present and forecast sales volume.

Area sales manager	- 1	Stores clerk	- 1
Sales representative	- 1	Stores assistant	- 1
Sales clerk	- 1	Electrician	- 1
Cashier	- 1	Refrigeration technician	- 1
Secretary	- 1	Driver	- 1
Office orderly	- 1	Compressor attendants	- 1
Security guard	- 5	Cleaner	- 1

7. It was decided to increase the despatches from Lusaka. The control on credit sales and cash, in Kitwe was found to be good. The operation in Kitwe was found more efficient than in Lusaka.

Appendix V

Copy of letter dated December 15, 1992 addressed to
Mr. F.Z. Simenda, Managing Director

Dear Mr. Simenda,

This is to confirm the discussions we had recently, when I expressed my views regarding the organisation and functional performance of the Company's Finance and Accounts Department.

1. The fact that Management Accounts are in arrears for over five months is most alarming, particularly in an inflationary situation as prevailing in Zambia today, when changes are taking place in the market-place, virtually everyday.

2. The absence of financial statements will obviously leave the Management in a very vulnerable position due to its inability to take timely decisions. A case in point was the product costing which was reviewed last week, when it was observed that the selling prices were determined on the basis of outdated input costs. This situation has now been corrected with revised prices and terms of sale, etc.

3. The controls on cash and banking are shoddy and leave much to be desired. As a result of poor internal controls, several instances of cash losses have occurred, where chances of recovery are considered to be virtually impossible. Instances of forged Company cheques being cashed have also been brought to light involving very large sums of money. I understand that one of the forged cheques encashed in October was discovered only now, which obviously reflects the poor internal control.

4. I find that although there have been several instances of cash fraud, loss of finished products from the factory, burglary, etc., resulting in huge losses for the Company, there appears to be no system at present for the submission of first information reports by the departmental heads to you, explaining the salient features of the occurrence, the estimated loss, etc. In the absence of such reports, it was not possible to assess the total loss thus incurred from January 1992, till now. In the last four weeks alone there have been about four instances of cash fraud, burglary and loss of finished goods.

I recommend that a system be introduced which will require departmental heads to submit written reports to you immediately, whenever any fraud, theft, burglary occurs in the Company. The report should also indicate the action that has been initiated to apprehend the concerned culprits and recommendations to prevent such occurrences in future.

5. At present the Finance and Accounts departments is located at Cha Cha Cha Road in the city center, about 2.5 kms. from the Head Office/Factory, where all the important activities take place. It is imperative that the Finance and Accounts Department is located in and operates from the same premises as the Head Office. The present arrangement has resulted in extremely poor communication between Head Office as well as the Factory with the Finance Department, and very often has resulted in disruption of production, conflict with creditors and delayed banking of cash collections against retail sales, etc.

I have recommended that the Finance and Accounts Department be moved to Head Office at the earliest, to be followed in due course by the warehouse as well, so that the establishment in the city can be closed.

The property is located in prime commercial area and can be given out on lease at very remunerative rates.

6. A review of the available information indicates that the Company has a financial liability as on 30 October 1992 in excess of Kwacha 50 million consisting broadly of:

A	-	TRADE CREDITORS	-	K17.4m
B	-	STATUTORY (Sales tax, PAYE, ZNPF Pension, etc.)	-	K15.3m
C	-	LOANS	-	K 7.0m
D	-	BANK OVERDRAFT	-	K11.0m
		TOTAL		<u>K50.7m</u>

Failure to settle creditors bills have hampered supplies to the factory.

7. It has been reported that the Company's property does not have an Insurance Cover, due to failure to pay the insurance premium. This needs verification and corrective steps taken immediately on a priority basis.

8. In this note I have only covered some salient points, which I believe will assist you in initiating some urgent corrective measures.

RECOMMENDATION

I have already indicated some of my recommendations in terms of corrective steps in operational areas but, in addition, it would seem that the Company needs to take immediate measures to bring its books up-to date, so as to understand the true financial status of the enterprise.

As indicated earlier, it would seem that the financial liability of the Company is in excess of K50 million as on 30 October 1992.

Under these circumstances, it would be prudent to call in the Company's external auditors urgently to carry out a crash-programme to up-date the books of account within a specified time frame not exceeding one month and concurrently reorganise the Finance Department by appointing a competent Head of the Department with a proven track-record.

I will be happy to discuss this subject with you in greater detail, and provide you with whatever assistance that may be required.

Yours sincerely

VIJAY KUMAR
SENIOR CONSULTANT

Appendix VI

Copy of letter dated December 22, 1992 addressed to
Mr. F.Z. Simenda, Managing Director

Dear Mr. Simenda,

In view of the tight cash flow situation in the Company I recommend that measures be instituted immediately whereby expenditure be incurred only after obtaining prior approval from either yourself or Mr. B.L. Walmsley.

You may wish to consider the following division of areas:

1. Expenditure related to Administration, Marketing and General - Managing Director
2. Expenditure related to Factory purchases and Engineering - Mr. B.L. Walmsley

You will recall that a decision had been taken to place an advertisement in the newspaper to invite applications from prospective distributors on a nation wide basis. The advertisement was to have been accorded high priority but it has appeared only on December 22, 1992.

It is recommended that applications for appointment of distributors be screened by a committee consisting of the following members:

1. Marketing Manager and Area Sales Manager
2. Technical Manager and Purchasing Manager

The recommendations of the committee should be submitted to the Managing Director with substantive reasons supporting their qualification, for final approval.

Appointment of distributors should therefore be made only through a letter issued and signed by the Managing Director, clearly stating and spelling out the terms and conditions of appointment. Such terms and conditions should be drawn up well in advance by the above committee and explained to the selected distributor, before the formal letter is issued.

I would suggest that the Managers concerned are called for a meeting as soon as possible so that the modus-operandi is clearly explained and everyone understands the Company policy, and the correct procedures to be followed.

If you need any clarifications raised in this note, please do not hesitate to let me know.

Regards,

Yours sincerely,

VIJAY KUMAR
SENIOR CONSULTANT

Appendix VII

Copy of letter dated January 13, 1993 addressed to
Mr. F.Z. Simenda, Managing Director

Dear Mr. Simenda,

During the last eight weeks, we have reviewed the operations of all the various departments at ZAPP and agreed on implementing specific recommendations made as a result of the diagnostic study which is nearing completion.

It has now been concluded that the cold rooms at ZAPP would need urgent rehabilitation to enable the Company to progress towards regaining its market leadership. Needless to say that the rehabilitation should be implemented only if all the other corrective measures recommended in the areas of Finance, Marketing and General Administration are rigidly enforced.

I am pleased to enclose herewith a report, along with recommendations for the expeditious rehabilitation of the cold rooms.

Regards,

Yours sincerely,

VIJAY KUMAR

Appendix VIIILIST OF COMMERCIAL AND SMALL SCALE FARMERS

Name of Farm	Address	Sow Unit	Town
A.J. Park	Box 120	Mazabuka	Mazabuka
Abosolom Momo	Box 220	270	Monze
Amaz Farm II Ltd.	Box 30479	270	Lusaka
Anderson Enterprises	Box 31868	270	Lusaka
Appolo Farm	Box 10110	270	Chingola
Augustine Ndeleki	Box 660132	270	Monze
B. Mapipo	Box 34086	270	Lusaka
B. Muchiya	Box 370	270	Monze
B.G. Ngoma	Box 32010	270	Lusaka
B.G. Ngoma	Box 32070	270	Lusaka
Barnabars Mulimo	Box 660132	270	Monze
C.M.M.S.	Box 37367	270	Lusaka
C.N. Maluma	Box 40	270	Chongwe
C.V. Zulu	Box 50647	270	Lusaka
Canisius Secondary School	Box 1	Mazabuka	Chisekesi
Cedrics Farm	Box 21207	270	Kitwe
Chaba Farm	Box 34696	270	Lusaka
Chikankata Secondary School	Box 51	Mazabuka	Mazabuka
Chinese Road Team	Box 31205	270	Lusaka
Conard Chabuka	Box 64	270	Monze
D.J. Farm	Box CH165	270	Lusaka
Daniel Mumba	Box 33790	270	Lusaka
David Livingstone Teachers Training College	Box B/G1	270	Livingstone
E. Chaate	Box 108	270	Monze
E. Clayton	Box 42	Mazabuka	Kapiri Mposhi
E. Hamubeke	Box 100	270	Monze
Elvis Mweemba	Box 108	270	Monze
Faith Farm	Box 31979	Mazabuka	Lusaka
Finta Farm	Box 60845	270	Livingstone
Finta Farm	Box 60845	270	Livingstone
First Willich Farm Ltd.	Box 31619	270	Lusaka
G. Mulendema	Box 109	Mazabuka	Mazabuka
G. Nawa	Box 80926	Mazabuka	Kabwe
G.W. Namooobe	Box 108	Mazabuka	Chisekesi
George Cornhill	Box 660074	270	Monze
Gibson Ntaulo	Box 33633	270	Lusaka
Golden Cross	Box 32522	270	Lusaka
H. Mukwempa	Box 660155	270	Monze
H.D. Chiyobeka	Box 108	270	Monze
Hare Handima	Box 132	270	Monze

Name of Farm	Address	Sow Unit	Town
Harry Nunchindu	Box 660132	270	Monze
Hugo Farm	Box 30068	270	Lusaka
I. Bruce Miller	Box 630025	Mazabuka	Choma
Inkaat Meat Products	Box 301705	270	Lusaka
J. Nachitila	Box 108	270	Monze
J. Parshotam	Box 840067	270	Mushi
J.B. Rynders	Box 30236	270	Lusaka
J.G. Bender	Box 32159	270	Lusaka
J.H. Haninga	Box 33028	270	Lusaka
J.P. Malange	Box 36430	270	Lusaka
John of Gaunt	Box 30571	270	Lusaka
Jorim Simoomba	Box 132	270	Monze
Josters Michelo	Box 215	270	Monze
Justin Mikondo	Box 388	270	Monze
K.L. Monge	Box 350024	Mazabuka	Chilanga
K.S.H. Farm	Box 21466	270	Kitwe
Kaison Mweene	Box 108	270	Monze
Kalangwa Estates	Box 30170	270	Lusaka
Kalimba Farm	Box 30131	270	Lusaka
Kasisi Agriculture Training Centre	Box 30652	270	Lusaka
Kudu Walk Farm	Box	270	Lusaka
L. Hamakonka	Box 108	270	Monze
L.T. Lubuli	Box 31967	270	Lusaka
Leeward Arcres Farm Ltd.	Box 34572	270	Lusaka
Libra Farm	Box 32465	270	Lusaka
Liebies Ltd.	Box 30410	270	Lusaka
Lubuto Farm	Box 38002	270	Lusaka
M.J. Katundu	Box 33244	270	Lusaka
M.M. Jurda	Box 840038	270	Mushi
M.R. Hanyinde	Box 660132	270	Monze
Magula Farm	Box 463	Mazabuka	Mazabuka
Maramba Farm Produce	Box 60230	270	Livingstone
Mavo Butchery	Box 32729	270	Lusaka
Memaco Farms	Box 80895	Mazabuka	Kabwe
Minisini Farm	Box 30031	270	Lusaka
Mr. B. Mapipo	Box 30272	270	Lusaka
Mr. E. Phiri	Box 320082	270	Lusaka
Mr. E.A. Chibale	Box 34063	270	Lusaka
Mr. J.M. Steyn	Box 30316	270	Lusaka
Mr. J.B. Jolly	Box 30855	270	Lusaka
Mr. J.W. Phiri	Box 350096	Mazabuka	Chilanga
Mr. L. Banda	Box 32379	270	Lusaka
Mr. Lian Yue Ming	Box 31205	270	Lusaka
Mr. M.C. Mwamba	Box 37545	270	Lusaka
Mr. M.F. Phiri	Box 30297	270	Lusaka
Mr. P.V. Fube	Box 340003	270	Lusaka
Mr. Patson sifuke	Box 31388	270	Lusaka
Mr. J.H.B. Makate	Box 35197	270	Lusaka
Mr. S.R. Manda	Box 35727	270	Lusaka

Name of Farm	Address	Sow Unit	Town
Mrs. Bray	Box 33140	Mazabuka	Lusaka
Mrs. F.H. Amautovic	Box 840040	270	Mushi
Mrs. Findley	Box 31407	Mazabuka	Lusaka
Mrs. M.D. Mwale	Box 34659	270	Lusaka
Mrs. R. Banda	Box 31781	270	Lusaka
Mubala Mwillu	Box 6	270	Monze
Muyeko Farm	Box 31580	270	Lusaka
N.R.D.C.	Box CH 99	270	Lusaka
Nchanga Farms	Box 20612	270	Chingola
Nkumba Piggery	Box 30031	(400)	Lusaka
C. Matyola	Box 132	270	Monze
Oliver Chibbala	Box 12	270	Monze
Out Span Farm	Box 60194	270	Livingstone
PNLB Import & Export Enterprises Ltd.	Box 36602	270	Lusaka
Redson Phiri	Box 229	270	Monze
Ridgeway Car Hire	Box 30929	270	Lusaka
S. Kamando	Box 388	270	Monze
S. Shimukowa	Box 80669	Mazabuka	Kabwe
Shangala Estates	Box 30106	270	Lusaka
Shelley Farm	Box 310097	(400)	Lusaka
Siamuseye Chitumbu	Box 132	270	Monze
Sudzi Farm	Box 50342	Mazabuka	Lusaka
T.N. Sakala	Box 34344	270	Lusaka
Talent Noole	Box 63270	Mazabuka	Choma
Teddy Chileka	Box 820015	Mazabuka	Chisekesi
Torborough Farm	Box 10055	270	Chingola
Trotover Farm Ltd.	Box 320015	270	Lusaka
V.P. Farms	Box 70945	Mazabuka	Ndola
Vid Mar	Box 840136	270	Mushi
Vincent Mweene	Box 108	270	Monze
W. Hausheer	Box 35032	270	Lusaka
W. Ng'andu	Box 108	270	Monze
Wise Simweene	Box 64	270	Monze
Z.N.S. Choma	Box 630027	Mazabuka	Choma
Zhutian Ming	Box 37367	270	Lusaka

Appendix IXCHANGES IN EX FACTORY PRICE LIST AT DIFFERENT DATES

PRODUCT	UNIT	PRICE IN DEC, 01	PRICE IN DEC, 14	PRICE IN FEB, 16	PRICE IN APRIL, 19
BARBEQUE SAUSAGES	PER KG	800.00	960.00	1010.00	1265.00
BARBEQUE SAUSAGES	500 G	460.00	560.00	590.00	740.00
BEEF SAUSAGES	PER KG	980.00	1175.00	1235.00	1545.00
BEEF SAUSAGES	500 G	520.00	625.00	660.00	825.00
MAKUMBI SAUSAGES (MADE TO ORDER)	500 G	520.00	625.00	660.00	825.00
MAKUMBI (COCKTAIL)	500 G	565.00	680.00	715.00	895.00
SPECIAL SMOKED SAUSAGES	PER KG	830.00	1000.00	1050.00	1315.00
MAKUMBI SAUSAGES	PER KG	980.00	1180.00	1240.00	1550.00
MUTANDA SAUSAGES	500 G	550.00	660.00	695.00	870.00
MUTANDA SAUSAGES (BULK)	PER KG	1015.00	1220.00	1285.00	1610.00
KARIBA SAUSAGES (BULK)	PER KG	870.00	1045.00	1100.00	1375.00
KARIBA SAUSAGES PP	500 G	535.00	645.00	680.00	850.00
BOEREWORS SAUSAGES	500 G	550.00	660.00	695.00	870.00
JUMBO VIENNAS	PER KG	800.00	960.00	1010.00	1265
JUMBO VIENNAS PP	500 G	465.00	560.00	590.00	740.00
SMOKED BEEF SAUSAGES	PER KG	1080.00	1300.00	1365.00	1710.00
SMOKED BEEF SAUSAGES PP	500 G	610.00	732.50	775.00	970.00
VIENNAS (HOT DOGS)	PER KG	830.00	1060.00	1115.00	1395.00
VIENNAS (HOT DOGS)	250 G	325.00	330.00	410.00	515.00
SPECIAL SMOKED SAUSAGES	500 G	495.00	595.00	625.00	785.00
LUANGWA SAUSAGES	PER KG	790.00	950.00	1000.00	1250.00
<u>BACONS</u>					
VP SLICED PREMIUM BACON	250 G	540.00	540.00	595.00	745.00
SLICED MIDDLE CUT RASHERS (BULK)	PER KG	1600.00	1600.00	1760.00	2200.00
GREEN BONELESS MIDDLES	PER KG	1165.00	1165.00	1285.00	1610.00
GREEN MIDDLES	PER KG	1085.00	1085.00	1195.00	1495.00
GREEN ROLLED BONELESS MIDDLES	PER KG	1190.00	1190.00	1310.00	1640.00
SMOKED BONELESS MIDDLES	PER KG	1225.00	1225.00	1350.00	1690.00
SMOKED MIDDLES	PER KG	1190.00	1190.00	1310.00	1640.00
ORDINARY SMOKED BONES	PER KG	310.00	310.00	345.00	435.00
VP PRIME BACK BACON	250 G	670.00	670.00	740.00	925.00
VP STREAKY BACON	250 G	650.00	650.00	715.00	895.00
SMOKED PORK LOIN	PER KG	1635.00	1635.00	1800.00	2250.00
SMOKED ROLLED BONELESS MIDDLES	PER KG	1290.00	1290.00	1420.00	1775.00

PRODUCT	UNIT	PRICE IN DEC,01	PRICE IN DEC, 14	PRICE IN FEB,16	PRICE IN APRIL,19
HAM					
VACUUM PACKED COOKED	200 G	410.00	800.00	455.00	570.00
VACUUM PACKED GAMMON STEAK	500 G	1010.00	460.00	1115.00	1395.00
GREEM GAMMONS	PER KG	1240.00	980.00	1365.00	1710.00
GREEM BONELESS GAMMONS	PER KG	1275.00	520.00	1495.00	1870.00
GREEM ROLLED GAMMONS	PER KG	960.00	520.00	1585.00	1985.00
NUBSCHINKEN	PER KG	1640.00	565.00	1805.00	2260.00
DEWEY HAM	PER KG	1525.00	830.00	1680.00	2000.00
BOILING BACON	PER KG	1425.00	980.00	1570.00	1965.00
SMOKED GAMMONS	PER KG	1370.00	550.00	1510.00	1890.00
SMOKED BONELESS GAMMONS	PER KG	1485.00	1015.00	1635.00	2045.00
COOKED SMOKED GAMMONS ON BONE	PER KG	2015.00	870.00	1730.00	2165.00
SMOKED BOILED GAMMONS	PER KG	1570.00	535.00	2220.00	2775.00
COOKED GAMMON (App. 4 Kg)	PER KG	1640.00	550.00	1805.00	2260.00
GREEM SHANKS/HOCKS	PER KG	975.00	800.00	1185.00	1485.00
SLICED COOKED HAM	PER KG	1910.00	465.00	2105.00	2635.00
SMOKED SHANKS/HOCKS	PER KG	1115.00	1080.00	1230.00	1540.00
SMOKED HEADS	PER KG	785.00	610.00	1085.00	1360.00
PP SLICED COOKED HAM	500 G	990.00	880.00	1090.00	1365.00
DECORATED COOKED HAM	PER KG	2500.00	325.00	2750.00	3440.00
POLONIES					
SMOKED HAM POLONY	PER KG	1320.00	1585.00	1745.00	2185.00
CHEESE POLONY	PER KG	1405.00	1690.00	1860.00	2325.00
NACKWURST	PER KG	1280.00	1540.00	1695.00	2120.00
LUNCH TONGUE	PER KG	1230.00	1480.00	1630.00	2040.00
LIVER PATE	PER KG	1020.00	1225.00	1350.00	1690.00
VACUUM PACKED FRENCH POLONY	100 G	230.00	250.00	275.00	345.00
SAFARI SALAMI	PER KG	1110.00	1335.00	1470.00	1840.00
VACUUM PACKED GARLIN POLONY	PER KG	205.00	280.00	310.00	390.00
GARLIC POLONY (Rolls App.1.2 Kg)	PER KG	975.00	1225.00	1350.00	1690.00
FRENCH POLONY (Rolls App.3 Kg)	PER KG	1020.00	1170.00	1290.00	1615.00
GARLIN SAUSAGES	PER KG	1110.00	1335.00	1470.00	1840.00
LIVER SAUSAGES	PER KG	1000.00	1200.00	1320.00	1650.00
BEEF POLONY	PER KG	1230.00	1480.00	1630.00	2040.00
SALADI/BEEF POLONY	PER KG	1155.00	1390.00	1530.00	1956.00
COOKING FAT					
INDUSTRIAL LARD	PER KG	185.00	225.00	250.00	315.00
LARD (High Quality Fat)	PER KG	235.00	285.00	315.00	395.00
LARD PP	500 G	185.00	225.00	250.00	315.00
FLARE FAT	PER KG	210.00	255.00	650.30	315.00
BACK FAT	PER KG	540.00	650.00	715.00	895.00
SUPER FAT	250 G	145.00	175.00	195.00	245.00

PRODUCT	UNIT	PRICE IN DEC, 01	PRICE IN DEC, 14	PRICE IN FEB, 16	PRICE IN APRIL, 19
<u>FRESH PORK</u>					
PORK CHOPS	PER KG	895.00	1075.00	1185.00	1485.00
PORK LEGS	PER KG	895.00	1075.00	1185.00	1485.00
PORK LOINS	PER KG	895.00	1075.00	1185.00	1485.00
BONELESS PORK LEG	PER KG	1115.00	1340.00	1475.00	1845.00
BONELESS PORK LOIN	PER KG	1115.00	1340.00	1475.00	1845.00
PORK FILLET	PER KG	1610.00	1935.00	2130.00	2665.00
PORK SIDES (Porkers)	PER KG	1040.00	1250.00	1375.00	1720.00
BONED & ROLLED LEG OF PORK	PER KG	1465.00	1465.00	1615.00	-
BONED & ROLLED PORK LOINS	PER KG	1465.00	1465.00	1615.00	2020.00
HEAD BONES	PER KG	70.00	85.00	95.00	120.00
SPECIAL SPARE RIBS	PER KG	970.00	1165.00	1285.00	1610.00
SHOULDER SPARE RIBS	PER KG	845.00	1015.00	1120.00	1400.00
SMOKED SPARE RIBS	PER KG	1345.00	1615.00	1780.00	2225.00
PORK TROTTERS	PER KG	500.00	600.00	660.00	825.00
SUCKLING PIGS	PER KG	2290.00	2750.00	3025.00	3785.00
BACONERS	PER KG	1110.00	1335.00	1470.00	1840.00
MINCED PORK	PER KG	1065.00	1280.00	1410.00	1765.00
PORKERS	PER KG	1000.00	1200.00	1320.00	1650.00
PORK LIVER	PER KG	360.00	435.00	480.00	600.00
PORK KIDNEYS	PER KG	625.00	750.00	825.00	1035.00
BACK BONES	PER KG	375.00	400.00	440.00	550.00
HAM BONES	PER KG	185.00	200.00	220.00	275.00
PIG HEADS	PER KG	635.00	765.00	845.00	1060.00
PIG HEARTS	PER KG	435.00	525.00	580.00	725.00
LUNG SPLEENS	PER KG	150.00	150.00	165.00	210.00
FRESH SKINS	PER KG	185.00	200.00	220.00	275.00
TONGUES	PER KG	395.00	435.00	480.00	500.00
STOMACHS (Tripe & Pork Udder)	PER KG	110.00	110.00	125.00	160.00
SMOKED SKINS	PER KG	245.00	295.00	325.00	410.00
PORK SHOULDER BLADES	PER KG	90.00	100.00	110.00	140.00
CRACKLINGS (MASHOLA)	PER KG	245.00	295.00	325.00	410.00
FRESH SHANKS/HOCKS	PER KG	850.00	1020.00	1125.00	1410.00
SMOKED PORK LOINS (Biltong)	PER KG	1790.00	2150.00	2365.00	2960.00
BELLY PORK	PER KG	1065.00	1280.00	1410.00	1765.00
FRESH MIDDLES	PER KG	1150.00	1380.00	1520.00	1900.00
<u>FRESH PACKS FRESH PORK</u>					
PP HAM BONES	PER KG	395.00	475.00	525.00	440.00
PP ORDINARY SMOKED BONES	PER KG	385.00	465.00	515.00	645.00
PP SMOKED PORK LOINS	PER KG	2320.00	2785.00	3065.00	3835.00
PP BACK BONES	PER KG	520.00	625.00	690.00	690.00
PP TROTTERS	PER KG	800.00	960.00	1060.00	1325.00
PP PIG HEARTS	PER KG	785.00	945.00	1040.00	1300.00
PP SPECIAL SPARE RIBS	PER KG	1275.00	1530.00	1685.00	2110.00
PP PORK LEGS	PER KG	1220.00	1465.00	1615.00	2020.00
PP PORK CHOPS	PER KG	1220.00	1465.00	1615.00	2020.00
PP PORK LOINS	PER KG	1220.00	1465.00	1615.00	2020.00
PP PORK LIVER	PER KG	720.00	865.00	955.00	1195.00
PP PORK KIDNEYS	PER KG	865.00	1040.00	1145.00	1435.00
PP TONGUES	PER KG	735.00	885.00	975.00	1220.00

PRODUCT	UNIT	PRICE IN DEC,01	PRICE IN DEC, 14	PRICE IN FEB,16	PRICE IN APRIL,19
PP SMOKED SPARE RIBS	PER KG	1610.00	1935.00	2130.00	2665.00
PP FRESH SKINS	PER KG	395.00	475.00	525.00	660.00
PP MINCED PORK	PER KG	1700.00	2050.00	2255.00	2820.00
PP PORK FILLET	PER KG	2900.00	3580.00	3850.00	4815.00
<u>PET FOOD</u>					
SPECIAL HIGH QUALITY PET FOOD	PER KG	325.00	390.00	430.00	540.00
SAW DUST	PER KG	335.00	405.00	450.00	565.00
<u>BEEF MEAT</u>					
BEEF SIDES (Untrimmed if available)	PER KG	585.00	795.00	835.00	960.00
MIXED CUT	PER KG	485.00	610.00	645.00	745.00
UNTRIMMED MIXED CUT	PER KG	690.00	830.00	875.00	1010.00
PP FILLET STEAKS	PER KG	1320.00	1650.00	1735.00	1995.00
FILLET STEAK LOOSE	PER KG	1165.00	1460.00	1535.00	1765.00
OX KIDNEYS	PER KG	410.00	515.00	1045.00	1205.00
BEEF BONES	PER KG	185.00	235.00	250.00	290.00
MINCED BEEF	PER KG	1165.00	1400.00	1470.00	1695.00
OX TAIL	PER KG	585.00	735.00	1075.00	1240.00
MINCED STEAK	PER KG	1465.00	1835.00	1930.00	2220.00
PRESSED BEEF	PER KG	1515.00	1895.00	1090.00	2290.00
PUMP STEAK	PER KG	975.00	1220.00	1285.00	1480.00
T-BONE	PER KG	945.00	1185.00	1245.00	1435.00

1. This Price List supersedes all previous lists.
2. Prices are in Kwacha and are subject to change without notice and the price ruling at the time of delivery will hold irrespective of when the order was placed.
3. Prices applicable to purchases made directly from the Factory (Lusaka).
4. Kitwe price 4% and up country price 10% higher than ex-factory prices.

Appendix X

JOB EVALUATION

Grade	Job title	Salary		
		Basic x	Increment x	Final scales
10	Managing Director	334 120 x	15 190 x	679 640
	Technical Manager	143 440 x	6 680 x	290 380
	Finance Manager			
9/8	Production Manager	141 330 x	6 330 x	280 880
8	Chief Engineer	121 650 x	5 980 x	253 130
	Personnel Manager			
	Marketing Manager			
	Purchasing Manager			
	Company Secretary			
	Asst. Production Manager			
8/7	Finance Accountant	105 460 x	5 630 x	232 040
	Area Sales Manager			
	Engineer			
7	Personnel Officer (A) (IR)	100 500 x	5 250 x	221 000
	Assistant Accountant			
	Farm Liaison Officer			
	Production Superintendent			
	M D's Personal Assistant			
7/6	Assistant Personnel Officer	98 440 x	5 270 x	214 450
	A/Purchasing Officer			
	Stores Controller			
	Senior Sales Representative			
	Asst. Production Superintendent			
	Stock Control Officer			
6	Livestock Extension Officer	93 300 x	5 050 x	204 520
	Sales Representatives			
	Senior Accounts Assistant			
	M D's Personal Secretary			
	Electrician			
6/5	Production Supervisor	87 320 x	5 040 x	204 510
	Despatch Supervisor			
	Refrigeration Technician			
	HOD's Secretary			
	Welder			
	Cashier			
	Machinist			
	Motor Mechanic			
	Hygiene Supervisor			

Grade	Job Title	Salary Basic x Increment x Final scales		
5	Administration Assistant Stenographer Senior Typist Machine Operator Boiler Operator Production Checker Security Sergeant Production Assistant Driver (Heavy) Chauffeur	82 260 x	4 640 x	189 790
5/4	Personnel Clerk (AU) Accounts Clerk Accounts Assistant Purchasing Clerk Registry Clerk Engineering Stores Clerk Typist Stores Clerk Statistics Clerk Stock Control Clerk Invoicing Clerk Selling Assistant Switchboard Operator Factory Operator Security Guard Driver (Light vehicles) Boiler Attendant Counter Salesman	74 710 x	3 920 x	160 810
4	General Worker Sanitation Worker Officer Orderly Engineering Helper Cook	29 000 x	3 480 x	105 580



Friday, December 25, 1992

ZAMBIA PORK PRODUCTS SME



We are looking for agents to distribute our products in Lusaka, Livingstone, Mongu, Chipata, Mansa, Kasama, Solwezi, Kabwe and Copperbelt.

ATTRACTIVE CONDITIONS OFFERED:-
Interested parties should send in their applications within 10 days from the date of this publication, indicating their present areas of business, financial strength, bulk or retail sales facilities etc to:-

**The Managing Director
Zambia Pork Products SME
P.O. Box 31405
LUSAKA
Fax No: 287268**

53495/mw-23

MONDAY, DEC 21, '92



ZAMBIA PORK PRODUCTS SME

SPECIAL CHRISTMAS OFFER

Celebrate your Christmas with a smile. Take advantage of our generous cash discount of up to 10% on all bulk purchases.

Our sales counter will remain open from 07.30 hours to 17.00 hours daily.

Contact us for all your processed meat requirements at:-

**Zambia Pork Products
Main Factory
Old Mumbwa Road
LUSAKA**

Tel: 287018/287269

or

**Zambia Pork Products
Kitwe Depot
Euclid Road
KITWE**

Tel: 218188/218308

53758/sx-22

**Commercial
Farmers
Bureau**



P.O. Box 30395, Tel: 222797/222736/223222 T.A.Z. House, ChaChaCha Road

LSAKA Telex: CFB 40164 Telegrams: 'Farms-Bu' ZAMBIA.

Our Ref: PIG/1/1067/WJSH/maf

Our Ref:

29th October, 1992

The Hon. Dr. G. Scott, MP
Minister of Agriculture, Food & Fisheries,
P.O. Box 50291,
L U S A K A

Dear Minister,

IMPORTATION OF COLCON PORK PRODUCTS FROM ZIMBABWE

With reference to your recent request for details of the duty and sales tax applicable to the above products, I attach a copy of the relevant page of the statutory instrument dated 2.12.88, which sets out the rates of duty applicable to PFA Imports.

We are informed that the Customs Dept. have been applying tariff item no. 02.01.25 - pork meat - to Colcon produce, thus allowing it to be imported duty free.

It would appear that this is the wrong item. The correct one for processed meats is 02.06.10, which attracts duty at 30%. I enclose a copy of a letter addressed to the Controller of Customs requesting him to reconsider the classification.

However, apart from the duty rate applicable, sales tax is not payable on imports of meat products from PFA sources, but is payable at 20% on locally produced processed meats. This seems wrong in principle. We are encouraging importation of goods that can be produced locally, thus wasting foreign exchange, and we are discouraging local production, with a consequent loss of employment and tax revenue.

As you will be aware, current pig prices are unremunerative, probably because they have been depressed by low beef prices which have been depressed recently by a glut of cattle on the market due to destocking. The Colcon imports have worsened the position.

Anything you can do to rectify this sales tax anomaly will be much appreciated by pig producers.

Presumably sales tax is not charged on PFA imports in terms of the PFA agreement. This could not easily be altered. The only solution would appear to be abolition of sales tax on locally produced processed foods. We have recommended this to the Ministry of Finance on several occasions in the past without result.

Yours sincerely,

W.J.S. HUDSON
EXECUTIVE DIRECTOR

c.c. Chairman, Pig Committee

c.c. General Manager, ZAPP Ltd. ✓

Pork firms murmur over "unfair" deal

By Victor Zaza

A ZIMBABWEAN company alleged to be importing pork products in the country duty free has put Zambian pork produce companies in an 'unfair' competition. The companies are supposed to pay 20 per cent sales tax.

Customs department applying tariff number 2.01.26 to pork meat from a Zimbabwean company, Colcom, allowed duty free importation.

Zambian commercial farmers have complained and the farmers union has written to Minister of Agriculture, Food and Fisheries, Guy Scott about the tariff on the imported, meat.

"Imported processed meat usually attract 30 per cent duty and the appropriate tariff should have been number 02.06.10," the farmers say.

Importing meat from Preferential Trade Area, PTA countries is tax free, but Zambian meat products attract 20 per cent sales tax.

The farmers say free importation of meats and goods that can be produced locally is a waste of foreign currency and is discouraging local production.

Managing Director

Managing Director

Manufacture and Sale of Various Sausages

Pursuing up a directive from the Government from Delhi, the following samples were sent for laboratory analysis to determine quality. The samples analysed were as follows:-

Lot No. 1

- Sample No. 1) Sausage (Mutton) - Tinkatara Farm Products
- 2) Sausage (Mutton) - Tinkatara Farm Products
- 3) Sausage (Mutton) - GICCO
- 4) Sausage (Mutton) - GICCO
- 5) Sausage (Mutton) - GICCO
- 6) Sausage (Mutton) - GICCO
- 7) Sausage (Mutton) - Tinkatara
- 8) Sausage (Mutton) - GICCO
- 9) Sausage (Mutton) - GICCO

Lot No. 2

- Sample No. 1) Sausage (Mutton) - GICCO
- 2) Sausage (Mutton) - GICCO
- 3) Sausage (Mutton) - GICCO
- 4) Sausage (Mutton) - GICCO
- 5) Sausage (Mutton) - GICCO
- 6) Sausage (Mutton) - GICCO
- 7) Sausage (Mutton) - Tinkatara
- 8) Sausage (Mutton) - Tinkatara
- 9) Sausage (Mutton) - GICCO

cc. Mr. [Name]

cc. Managing Director
 & Law Consultant



MM

REPUBLIC OF ZAMBIA

MINISTRY OF HEALTH

FOOD & DRUGS CONTROL LABORATORY
P.O. BOX 30138
LUSAKA

7th December, 1992

Eimataa Mwafuluka
Zambia Pork Products
P O Box 31405
Lusaka

①

Microbiological Analysis Report

1. Cooked Hangarian sausages marked No. 1
2. Super hangarian sausages marked No. 2
3. Raw cambridge sausage marked No. 3
4. Raw makumbi sausage marked No. 4
5. Kariba cooked sausage marked No. 5
6. Jumba vienna sausage marked No. 6
7. Vienna sauage marked No. 7
8. French polony marked No. 8
9. Garlic polony marked No. 9

<u>Results</u>	<u>Total plate count</u>	<u>Salmonella</u>
1	350	nil
2	070 ✓	nil
3	120	nil
4	250	nil
5	150	nil
6	120 ✓	nil
7	220	nil
8	nil	nil
9	030	nil

Remarks:- No pathogens were isolated.

G.E. Mundia
PUBLIC ANALYST

N.B Statutory instrument No. 87 of 1992. The food and Drugs
(Tariff of fees) Regulations 1992.

Microbiological Analysis i) Plate count: K650x9 = K5,850.00
 ii) Salmonella check: K1600x9 = K14,400.00
Total K20,250.00

Twenty thousand two hundred and fifty kwacha only



REPUBLIC OF ZAMBIA

MINISTRY OF HEALTH

OFFICE OF THE DIRECTOR
PUBLIC HEALTH LABORATORY
P.O. BOX 30138
LUSAKA

21st December, 1992

The Marketing Manager
Zambia Pork Products Ltd
P O Box 31405
Lusaka

Analysis Report

Report on the chemical analysis of the samples below received here on 2nd December, 1992.

<u>Sample & Mark</u>	<u>Mositure</u> percentum	<u>Protein</u> %	<u>Fat</u> %	<u>Ash</u> %	<u>Salt</u> as Nacl %	<u>Cabohydrate</u> by difference	<u>Meat</u> Content
Cooked Hungarian sausages No. 1	60.0	16.8	16.2	3.2	1.4	4.0	90.7
Supper hangarian sausages No. 2	61.0	13.4	13.3	3.3	1.1	9.8	69.4
Raw Cambridge sausages No. 3	59.0	16.9	13.9	3.8	1.4	6.4	89.4
Raw Makumbi sausages No. 4	61.9	10.2	15.7	2.4	1.4	9.8	56.7*
Kariba cooked Sausages No. 5	61.2	14.2	16.9	2.0	1.5	5.7	78.5
Jumba Vienna sausages No. 6	62.3	14.4	14.2	2.6	1.3	6.5	76.3
Vienna sausages No. 7	59.7	13.9	13.1	9.6	1.2	3.7	74.5
French Polony No. 8	59.2	13.4	11.6	3.3	1.5	12.5	65.7
Garlic Polony No. 9	59.8	15.4	12.2	2.9	1.4	9.7	77.0

Food and Drugs
Regulations of Zambia
(1978)

(1) Regulation No. 313
"Limits for filler,
meat binder, etc.,
and moisture in
prepared meat or
prepared meat by-
products for sale"

not more
than 60.0

(2) Regulation No. 315
"Standard for
sausage or sausage
meat"

not less
than
65.0
percentu

M. Songolo
M. Songolo
for/PUBLIC ANALYST

N:B Statutory Instrument No. 87 Of 1992. The Food and Drugs (Tariff of fees) Regulation.

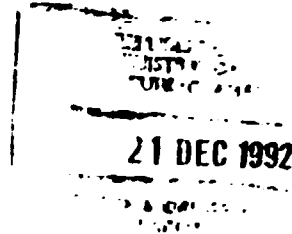
Complete chemical analysis of meat and meat products

(i) Prepared/processed/cured meats K1,100 each
K1,100 x 9 samples = K9,900.00

Total K9,900.00

Nine thousand nine hundred kwacha only

Payable To: The Permanent Secretary
Ministry of Health
P. O. Box 30205
Lusaka





REPUBLIC OF ZAMBIA

MINISTRY OF HEALTH

FOOD & DRUGS CONTROL LABORATORY

P.O. BOX 30138

LUSAKA

14th December 1992

2

The Marketing Manager
Zambia Pork Products
P.O. Box 31405
LUSAKA

MICROBIOLOGICAL ANALYSIS REPORT

1. Vienna sausage marked No. 1
2. Russian sausage marked No. 2
3. Gammon rashers marked No. 3
4. Gammon steak marked No. 4
5. French polony marked No. 5
6. Mixed cold meats marked No. 6
7. Cheese Polony marked No. 7
8. Premium bacon marked No. 8
9. Premium bacon marked No. 9

<u>Results</u>	<u>Coliform count</u>	<u>Total Plate count</u>	<u>Yeast & Moulds</u>	<u>Salmonella</u>
1	2,400 ⁺	50	Nil	Nil
2	Nil	Nil	Nil	Nil
3	43	50	Nil	Nil
4	Nil	Nil	Nil	Nil
5	Nil	Nil	Nil	Nil
6	Nil	Nil	Nil	Nil
7	1,100	25	Nil	Nil
8	43	15	Nil	Nil
9	9	Nil	Nil	Nil

Remarks: E.coli type 1 was isolated in food samples marked No. 1,3,7,8 and 9.

G.E. Mundia
PUBLIC ANALYST

N.B. Statutory Instrument No. 87 of 1992. The Food & Drugs (tariff & fees) Regulations 1992.

A. (i) Plate count	:	K650 x 9 = K5,850
(ii) E. coli identification	:	K1000 x 9 = K9,000
(iii) Moulds	:	K800 x 4 = K3,200
(iv) Salmonella Check	:	K1600 x 9 = K14,400
Total:		<u>K32,450</u>

Thirty two thousand, four hundred and fifty kwacha only.



REPUBLIC OF ZAMBIA

MINISTRY OF HEALTH

OFFICE OF THE DIRECTOR
PUBLIC HEALTH LABORATORY
P.O. BOX 30138
LUSAKA

21st December, 1992

The Marketing Manager
Zambia Pork Products Ltd
P O Box 31405
Lusaka

Analysis Report

Report on the chemical analysis of the samples tabulated below received here on 8th December, 1992.

<u>Sample and Mark</u>	Moisture percentum	Protein %	Fat %	Ash %	Salt %	Carboh- ydrate by differ- ence %	meat content percent- um
Inkaat vienna sausage No. 1	62.4	14.7	23.3	1.7	1.0	-2.1	89.3
Colcom Russian sausages No. 2	60.9	21.4	9.3	2.0	1.7	6.4	103.5
Colcom Gammon Rashers No. 3	61.3	21.0	18.2	2.6	1.9	-3.1	116.0
Colcom Gammon steak No. 4	66.1	21.5	4.8	4.8	3.9	2.8	101.5
Colcom French Polony No. 5	65.0	14.5	9.4	2.8	1.9	8.3	70.9
Colcom Mixed Cold meats No. 6	51.2	16.7	10.1	3.4	2.2	18.6	75.8
Twikatane Cheese Polony No. 7	59.9	19.5	7.6	4.1	1.9	8.9	91.7
Twikatane Premium bacon No. 8	38.7	27.1	11.5	2.5	1.5	20.2	123.8
Lusaka Cold Storage Premium Bacon No. 9	38.9	20.2	14.3	7.6	7.1	19.0	95.5
Food and Drugs Regulations of Zambia (1978)							

Regulation No. 313
"Limits for filler,
meat binder, etc
and moisutre in
prepared meat or
prepared meat by-
products for sale

not more
than 60.0

M. Songolo
M. Songolo
for/PUBLIC ANALYST

N:B Statutory instrument No. 87 of 1992. The Food and Drugs (Tariff of fees) Regulation.

Complete chemical analysis of meat amd meat products

(i) Prepared/processed/cured meat	K1,100 x 9 samples	=K9,900.00
	Total	<u>K9,900.00</u>

Nine thousand, nine hundred kwacha only

Payable To: The Permanent Secretary
Ministry of Health
P O Box 30205
Lusaka

REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH
PUBLIC HEALTH

21 DEC 1992

FOOD & DRUGS
LABORATORY
P.O. BOX 100