



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

17712
17712
17712

17712

REPORT ON THE MISSION TO

ZAMBIA, MALAWI, ZIMBABWE, LESOTHO AND TANZANIA

(UNIDO)

15 JULY TO 13 AUGUST 1989

BY

ALEXANDRE SANZ VEIGA

(AGRONOMIST)

66/5

I. INTRODUCTION

Under the auspices of the Programme for the Industrial Development Decade for Africa, UNIDO and the Brazilian Government have agreed to organize a working meeting in the area of agro-industries which will be held in Brazil next coming November.

To attend this meeting, UNIDO is inviting from selected African countries, officials and entrepreneurs from the agro-industrial sector with practical experience in the food processing industry and who hold decision making offices.

It was also determined that a consultant would undertake a preparatory mission to some invited countries to identify their needs for co-operation with Brazil.

In this assignment only five English speaking Eastern and Southern African countries (front-line States) were selected to be visited by the consultant on the grounds that these countries had very few ties with Brazil and therefore required greater attention.

However, the short time considered for the journey and the very difficult and awkward airline schedules allowed very little flexibility in working out the mission programme. Therefore in order to maximize results good coordination between the sponsoring organization and agency was absolutely mandatory. The UNDP/UNIDO offices and Brazilian Embassies in these countries were to receive advance notice of the mission in order to make necessary arrangements.

The one week postponement in starting up the mission somewhat disrupted this set up and programmes to some countries were partially sacrificed. As it could be expected from missions under these circumstances, some important country aspects related to the agro-industrial sector were not fully assessed.

Nevertheless, the journey as a whole can be considered successful in the sense that good initial contacts have been made. These contacts if cultivated will help lay the necessary foundations for the development of future work and cooperation. Also possible areas for cooperation were identified and we were fortunate to the point that most of countries visited have similar economic and cultural backgrounds.

2. OBJECTIVES OF THE MISSION

The major objective of the missions undertaken to Zambia, Malawi, Zimbabwe, Lesotho and Tanzania, was to identify concrete areas of co-operation between these countries and Brazil in the field of agro-industries. The report of findings derived from these country visits will be part of the background documentation for the working meeting on co-operation which will take place in Brazil next coming November.

Other objectives would include the assistance to local authorities in establishing the profile of the nominees, and provide general information on the importance of the Brazilian agro-industry.

3. GENERAL INFORMATION ABOUT THE MISSION

3.1- Period: 15th July to 13th August 1989.

3.2- Consultant: Alexandre Sanz Veiga

3.3- Itinerary: São Paulo, Rio de Janeiro (Brazil);
Luanda (Angola); Lusaka (Zambia);
Lilongwe (Malawi); Harare (Zimbabwe);
Maseru (Lesotho); Nairobi (Kenya);
Dar es Salaam (Tanzania);
Lusaka (Zambia);
London (United Kingdom);
São Paulo (Brazil).

4. DAILY ACCOUNT OF ACTIVITIES

Saturday 15/07/89

Journey by bus from Piracicaba-SP to São Paulo's International Airport in Guarulhos. There inspite assurances from TAAG (Air Angola), my airplane ticket was not found at VARIG's counter as it had been promissied.

In order not to miss the flight to Luanda in Angola, I was forced to take an overnight bus to Rio de Janeiro.

Sunday 16/07/89.

TAAG'S flight DT 343 left Rio at 9:00 hours, local time, one hour late. Arrival at Luanda airport at 19:45 local time.

I was not granted transit visa by local authorities, being compelled to stay overnight at the airport.

Monday 17/07/89.

Angola Airlines flight DT 587 departed to Lusaka at 14:00 hours, 1:30 hours late. Arrived in Lusaka, Zambia at 17:25. There was no one from UNDP/UNIDO waiting to collect me at the airport. Entry visa was obtained at the airport after payment of a small fee of ZK 100,00, (US\$6,25).

Tuesday 18/07/89

Morning:

Reported at UNDP/UNIDO office at 8:00 hours. I was received by Mr. Sakari Oksanen JPO -UNIDO. As it was, they were expecting me a week ago, and were not informed on my new schedule. After a brief discussion on possible nominees I went to see Mr. Ernesto Perez UNIDO Technical Assistant Expert at INDECO Group of Companies. INDECO is responsible for 60 to 70% of all industrial production in Zambia.

Mr. Perez gave me a very good account on the Zambian agro-industry and the importance of maize in the local diet.

Back at UNIDO office I was informed that INDECO Executive Director Mr. S. Mulenga, chairman of the milling companies had been nominated to attend the workshop meeting.

Afternoon:

I met Dr. P.K. Nkanza, Project Evaluation Engineer, at the National Commission for Development Planning. He had participated on a study visit to Brazil in August 1988.

The workshop was directed to:

- establish onstitutional links between Brazil and African Countries;

- To promote activities between Brazil and African countries in the spirit of technology cooperation.

I found that Dr. NKanga had some interesting insights on the possibility of cooperation between Brazil and Zambia. In his view research and extension professionals should also be involved in the seminar.

When questioned about the consequences of the meeting, Dr. NKanga produced a report on the event which obtained no response whatsoever from the Zambian research institutions.

19/07/89 - Wednesday.

Morning.

I met briefly Mr. Oksanem at UNIDO office and Mr. Perez in his office at INDECO House.

At INDECO I met Mr. S. Mulenga, Zambia's nominee. He has already visited Brazil and is therefore quite aware of its industrial potentialities.

He sees the possibility of co-operating in the establishment of new maize mills and in the construction of new sugar-alcohol plants. The Cubans have been contacted in this respect, but he sees no reasons why Brazil shouldn't also be contacted. Zambia has only one sugar industry and production is beginning to fail due to the sugar-cane yields. He shares my views that agro industrial projects should come fully integrated with agricultural technical assistance. Sometimes in Africa, the

major constraints in the establishment of a strong agro-industrial sector, occur at farm level. I have no doubts that Mr. Mulenga is the most indicated Zambian authority to go to Brazil.

At Zambia Pork Products Limited, I spoke to Mr. Basil L. Walmsley, the technical manager. This plant has an installed capacity to process 40000 pigs per annum. However due to shortage of slaughtering pigs and mechanical constraints on its plant and machinery, for the past two years the number of animals received by ZAPP has been less than 7,000 per annum.

ZAPP management is currently proposing a programme to rehabilitate its operations which includes:

- renovation of plant and equipment;
- replacement of aged transport fleet of vehicles;
- assisted pig production scheme to produce pigs under contractual commitment as well as creating ZAPP's Pig Production Unit;
- recruitment of new qualified and experienced personnel and further training of present technical staff;
- finance; the company needs an injection of funds to meet both fixed and working capital needs.

In addition to the rehabilitation programme the management is also proposing expansion projects which will require external funding and technical assistance, these include:

- animal by products processing plant;
- canning plant;
- Bakery Unit (commercial pie making);
- Hamburger and Beef Burger Unit.

At the present moment slaughter house wastes are being disposed of, when they could be processed into meals for stockfeeds which are in very short supply in Zambia.

I had lunch with Miss Irene Vida Gala the Brazilian Embassy Commercial Attaché. The post of Brazilian Ambassador in Zambia is vacant as yet.

Afternoon.

Left Lusaka on Zambian Airways flight GZ - 560 at 16:25 (1:30 hours late) and arrived at Lilongwe, Malawi at 17:45 hours.

A UNDP driver was at the airport to receive me and take me to the hotel.

20/07/89 - Thursday.

At the UNDP office I was received by Mr. Kari Kohtamäki JPO/UNIDO who had already arranged a meeting with the Ministry of Trade, Industry and Tourism, to where UNIDO's letter of invitation had been addressed.

We were receptioned by the Chief Industrial Development Officer Mr. Chilingulo and by the Principal Industrial Development officer Mr. Macleod Tsilizani.

They explained that Malawi is essentially an agricultural country and that understandably, practically all industry is agro-allied.

They see possibilities of co-operation in the ethanol, maize milling and coffee processing sub-sectors.

Malawi had not yet appointed a representative to go to Brazil. Mr. Chilingulo is of the opinion that someone from Malawi Development Corporation-MDC should travel. He suggested the Projects Manager Mr. Kapalamula based in Blantyre, a Major industrial center to the south..

Still in the morning I tried to confirm my flight to Harare next coming Sunday. Again TAAG had failed me and I was forced to upgrade my ticket to business class in order not to miss the flight and upset my schedules.

Afternoon.

Mr. Kohtamäki suggest that I should interview Mr. Kapalamula in Blantyre therefore I purchased a return coach ticket to that city.

At 15:30 we attended a meeting with Ms. K. Leitner UN Resident Representative. She sees no possibilities in Brazil participating in Sugar or Alcohol projects as they represent sub-sectors where there are already well established interests.

She suggested as good possibilities the silk, cigar and cigarrillo industries. These are new areas in Malawi.

Ms. Leitner arranged for my DSA to be collected at Blantyre's National Bank of Malawi.

At 15:00 I met READI Project Coordinator Mr. Don Henri who gave some very useful information about small scale agricultural enterprises.

Mr. Henri complained that he has been trying to contact Brazilian equipment manufacturers without success. He hopes this will change after my visit.

According to Mr. Henri, Malawi has run out of arable land and the only way to increase production would be through better productivity in the agricultural sector. It is his view that the local economy cannot sustain any more large scale projects, whereas it has an enormous potential for small and a medium scale agro-industrial projects.

It would also be the only hope of increasing employment in the rural areas.

21/07/89 - Friday.

Left Lilongwe by coach (bus) at 7:30 hours (half an hour late). By road it is approximately 300 Km to Blantyre or roughly four hours.

My programme at Blantyre was completely disrupted due the fact that UNDP had not sent a credit advice in my name to the local National Bank of Malawi agency. I lost a precious two hours trying to sort things out between UNDP and Bank at Blantyre

I was invited to lunch by MDC's Projects Manager Mr. Vennie Y. Kapalamula. He had already been briefed by Mr. Chilingulo who had also given him the Aidé Memoire on the Braziliam workshop. As a Projects Manager of a development company he would make a good condidate, but his name has yet to be accepted by Malawian government. The meeting continued later at his office where we were joined by the Deputy Projects Manager Mr. James F. Kalizang'oma. They confirmed their interest on a new ethanol plant for the Sucoma Sugar Project using molasses as raw material.

It was not possible to make further contacts in Blantyre due to time constraint; the last coach to Blantyre leaves at 16:00 hours.

22/07/89 Saturday.

I reported at UNDP office at 8 o'clock but unfortunately the journey to Dwangwa Sugar Project had not been arranged as promised. UNDP's follow up in getting someone nominated for the workshop in Brazil will be needed.

23/07/89 - Sunday.

As I had been informed by the travel agency, there were no seats available in the economy class of the flight QM 147 to Harare. As it was I was forced to upgrade my ticket to business class (seats available here) paying an additional MK 42.00.

The Malawi Airways flight left Lilongwe at 12:00 hours arriving at Harare one hour later.

24/07/89 - Monday.

At UNDP's office I met Mr. Hans Jorg Friedrich JPO/UNIDO. He informed me that the best way to move around were taxis as UNDP was suffering acute transportation problems. Apparently private motorcars are in short supply in Zimbabwe. Mr. Friedrich had kindly arranged some meetings for this Monday.

The first person I met was Mr. S. Moyo from the Agrochemicals Association, who provided me with some very interesting insights on the agricultural situation in the country, particularly on how government controls the hectareage of crops to

be planted and the input quantities to be produced or imported.

At 11:30 I met Mr. J.W. Slupinski, Chairman of the food Manufacturers Association. The Zimbabwean Food Processing Industry is the most sophisticated in Black Africa with several canning companies throughout the country. The sub-sector however is currently facing some major problems which include:

- price controls which have reduced margins endangering the viability of companies;
- lack of foreign exchange;
- non availability of spare parts and new equipment;
- shortages of packaging materials.

Mr. Slupinski sees the scope for cooperation with Brazil as including the capital goods sector.

Afternoon.

At 14:30 I attended a meeting at the ministry of Industry and technology with Mrs T. Onyimo (International Cooperation), Mr. T. Kanyowa (Assistant Secretary for Metals and Electricals), Mr. I.N.Chasakare - S.A.O Food and Drinks and Mr. V. Vdzijena, under secretary Ministry of lands Agriculture and Rural Resettlement.

They informed that in their view an agriculturist should be sent to Brasil. In the end after a lengthy explanation on what the meeting was about, we all agreed that an expert in agro-industries was better suited. They showed interest in plants for citric and lactic acid, starch and glacial acetic acid.

They gave some hints that perhaps Mr. Chasakara would be nominated to go to Brazil.

In the same building I visited the Brazilian Embassy,

where I met Mr. Ralph Peter Handerson, the second secretary, (the ambassador was on leave). Mr. Handerson informed me that there is a company in Zimbabwe which is already importing coffee processing machines from Brazil to equip their plants.

The second secretary confirmed that major problems affecting the agro-industrial sector were mainly related to foreign exchange, lack of spare parts and packaging materials. Shortage of glass, tinsplate and plastics are common.

25/07/89 - Tuesday.

Morning. UNDP-Office.

Mr. Friedrich is of the opinion that cooperation with Brazil is possible specially in the informal sector where he thinks a large number of small scale processing equipment is needed.

At 12:30 I met Mr. Handerson and Mr. J. Wakeford the marketing director of Brazil Trade & Turnkey Projects (Zimbabwe) (Private) Limited, the company which imports Brazilian coffee processing equipment.

He is very fond of Brazilian equipment which he considers very sturdy and easy to operate and maintain. However he considers all of East and Southern Africa still very much dependent on English capital goods and technologies. There are many established interests which allow very little room for outside competition.

During luncheon Mr. Handerson recommended that I should get a new passport. In the present passport I hold a South African (visa which could bring me problems when applying for

entry visa in Kenya and Tanzania.

Afternoon.

At 14:40 I met Mr. Sibanda Project Appraisal Manager of Industrial Development Corporation of Zimbabwe Ltd. IDC is presently considering the construction of a Sugar Ethanol Project at Chisunbanje. The ethanol would be used for blending with petrol and as raw material for plastic resins (PVC and Polythylene).

They would like to receive a Brazilian quotation for the plant. There is no sure idea where the financing will be coming from.

26/07/89 - Wednesday.

Morning.

At 9:00 hours I met Mr. Foroma a research economist of the confederation of Zimbabwe Industries - CZI functions as a lobby for affiliated industries, representing them before government. He confirmed the information that government is seriously considering the implementation of an ethanol, sugar, PVC complex on the southern tip of Zimbabwe.

Afternoon.

At 14:00 hours met with Mr. Chifamba at the Ministry of Finance. Mr. Chifamba is one of the contact points between SADCC and the Zimbabwean Government. SADCC is presently shifting its priorities from the development of infra structure towards the development of industries specially pulp and paper fertilizers and tractors.

27/07/89 -Thursday

Morning.

Meeting with Mr. Dengu of the Intermediate Technology Development Group. This group concentrates its efforts on post-harvest intervention. They are presently working in oil expression processes for groundnuts and sunflower. ITDG is now experimenting with an Indian designed plant for expression of 400 lt of sunflower oil a day. Another area of possible cooperation is fruit drying using sun energy. Mr. Dengu informs that large quantities of fruits are lost every year due to the lack of processing, transport and packing facilities.

I had lunch with Mr. Mike Deley an intending crocodile farmer. He is exporting 120 African crocodiles to Brazil. He says that the African species have better priced hides than the South American species. He has developed with the help of International experts some new crocodile farming techniques which are highly successful.

Afternoon.

I had a meeting with Mr. Augustine S. Nyamatore Deputy Director (Planning) National Planning Agency. He informed me that government had plans to increase ethanol blending in petrol from 14 to 20%. This will be achieved through a consortium between NOCZIM- Natural Oil Company of Zimbabwe with the already existing ethanol plant at Triangle which will be expanded. The new sugar-ethanol plant at Chisumbanze will depend on water availability. The area is dry and hot and a dam has to be built.

28/07/89 - Friday.

Flight UM 161 left at 9:00 hours, half an hour late. It is a 1:30 hour flight from Harare to Johannesburg.

The Lesotho Airways flight QL 337 took off at 16:00 hours arriving at Maseru International Airport 1:05 hours later.

No one from the local UNDP was waiting at the airport. It seems that they were not informed of my arrival.

29/07/89 - Saturday

Went to UNDP office in the morning but found no one to report to.

30/07/89 - Sunday

Nothing to report.

31/07/89 - Monday

Morning:

Miss Anni Brejnholt - UNDP - JPO welcomed me informing that I was not expected. I learnt later that Government was reviewing the country programme and therefore, the Ministry of Planning had asked UNDP to postpone my visit. Since I had not been informed I did not consider it rude to show up when I did.

Miss Brejnholt informed me that Lesotho had nominated Mr. Joseph Thamae, Chief Industrial Development Officer from the Ministry of Trade and Industry to travel to Brazil.

A meeting with Mr. A. D. Adhikari CTA, UNP, Ministry of Trade and Industry, was quickly arranged.

Mr. Adhikari was kind enough to delay some previous appointments to receive me. He briefed me on some details on climate and topography of Lesotho and went even further to suggest areas of possible cooperation:

1. Edible oil expression - Specially sunflower should be considered. This crop seems to grow well in the southern areas of Lesotho.

2. Sugar beet → (Brazil is not the most indicated country to cooperate in sugar beet agro-industrial technology)

3. Dairy and beef cattle ranching - Complete vertical project (pastures, feedlots, abattoirs, cold stores) should be considered.

Mr. Adhikari informed that cattle grows quite well in Lesotho as it is affected by very few diseases.

Sorghum and Maize can also be cropped with good productivity, but Lesotho has not achieved self sufficiency in grains as yet. Most of the men work in South Africa where they are paid three times as much for their services. The soils in Lesotho seem to be very prone to erosion and land tenure systems do not seem to encourage soil conservation practices.

Back at the UNDP office I met Mr. Ibrahim Kuroma Project Coordinator of UNDP's Development of Rural Technology. He is presently working with small scale fruit driers, using sun energy.

We went together to the Basotho - Fruit and Vegetable Cannery. The factory was not operating as there were no vegetables available at this time of the year. They process and can asparagus, peach halves, apricot and plum jams, green beans, baked beans in tomato sauce. Most of their produce is exported to Europe.

Afternoon

Meeting at Ministry of Agriculture with Senior planning and Chief Marketing Officers.

According to them, the following are possible areas of cooperation:

- flour mills;
- fruit and vegetable canneries;
- feed mills;
- wool processing;
- tanneries;
- meat processing;
- oil expression;
- feedlots;
- seed propagation and multiplication.

Their main constraint seems to be their difficulty in obtaining their agricultural products.

In the evening I was received by Mr. Christian Lemaire Deputy Resident Representative to whom I made a brief report.

01/08/89 - Tuesday

Morning

Meeting at the Ministry of Trade and Industry. The Lesotho National Development Corporation was not present, contrary to what had been arranged. I had the opportunity to meet Mr. Joseph Thamae. According to him there are not many areas and activities within the country which have not yet been covered by the South African Republic enterprises and entrepreneurs.

Left Maseru after a very short stay at 12:00 sharp.
Arrived at Johannesburg at 13:10 hours.

At 19:00 departed from South Africa on flight BA-0054.
Arrived in Nairobi, Kenya at 23:20 hours, local time (one hour
difference to Maseru). The entry visa fee at Nairobi Airport was
US\$ 5.00.

02/08/89 - Wednesday

Left Nairobi on flight TL 733 at 14:30 hours. Arrival at
Dar es Salaam International Airport at 15:45 hours.

Mr. J. Rasmussen JPO/UNIDO, was aware of my coming and
left a message at the hotel. He had already arranged a meeting
with SIDO - Small Industries Development Organization for tomorrow
morning.

03/08/89 - Thursday

Morning

I was picked up by UNDP driver at 7:45 hours. At UNDP
office I met Mr. Jens Rasmussen and together we proceeded to SIDO
office.

There we were met by the Director of Research and
Development Planning Mr. Mike Laiser. He has been indicated by Mr.
Rasmussen and accepted by the Tanzanian Government, to go to the
workshop in Brazil.

At national level SIDO is responsible for planning
coordinating, promoting and offering technical economic and
management services to small industries both existing and
prospective ones. During the initial stages SIDO considered

industries which produced goods for the local market. Now the emphasis shifted to industries which can also export.

Areas of possible cooperation as far as SIDO is concerned are:

- Processing of fruits and vegetables - large production of cashew apples are wasted due to lack processing facilities;
- Cold storage facilities for meat and dairy products;
- Sun drying facilities for fruits;
- Coal for roasting coffee and curing tobacco;
- Small scale plants for crystalline sugar;
- Small scale plant for ethanol production;
- Small scale plant for palm oil expression;
- Reduction of wastes of maize and wheat shelling process.

Back at UNIDO offices Mr. Rasmussen informed that he foresaw great possibilities for cooperation. The Swedish Agency of Cooperation would finance the hardware (equipment) and UNIDO would finance the software (training, technical assistance, management).

He informed that the canning industries depend heavily on the rehabilitation of the Metalbox factory, the only tinplate manufacturer in Tanzania.

According to Mr. Rasmussen the following are the principal causes for the poor results of the Tanzanian economy:

- Very low salaries for government staff (A University Professor can get as little as US\$ 40.00 per month);
- Lack of managerial capabilities;
- Lack of foreign exchange for spareparts and machine maintenance;
- Lack of inputs.

Later, at the Brazilian Embassy I met the third secretary Mrs. Maria Aparecida Weiss who is substituting the ambassador who is now on leave.

She informed me that Brazil had already sent some experts on cashew fruit processing to Tanzania.

Afternoon

After lunch we went to the University of Dar es Salaam where we met Mr. Klaus Peter Stömer Director of Institute of Production Innovation.

Among many projects they have developed a small scale crystalline sugar plant which can be sustained by a two hectare sugar-cane plantation.

They have also developed a sunflower seed cold expression plant for a production of 25 l per day. This institute makes money by selling the equipment it develops and manufactures. The IPI project is partially funded by GTZ - Germany.

04/08/89 - Friday

Morning

The meeting at the Ministry of Trade and Industry was called off when the person contacted failed to show up.

At 11:00 hours Mr. Laiser took me to the Dar es Salaam Industrial Estate. At the estate sheds are rented to small scale entrepreneurs at cutdown rates. Other facilities such as workshop, drawing rooms and foundry are available. I was able to see a great range of small scale industries from hand saw to spectacle frame manufacturers, and they all seem to be doing quite well.

The objective of the the scheme is to work as a pilot

project for various types of small scale industries.

At the travel agency I was informed that the flight to Lusaka leaves on Mondays and not on Sundays as it had been booked by TAAG.

At the Brazilian Embassy I was informed that the African Facility had forwarded two names of local entrepreneurs who are interested in Brazilian equipment.

Mr. Rasmussen is of the opinion that in future we should consider the possibility of inviting as well serious entrepreneurs to these events with partial costs covered by the sponsoring organization. He is also of the opinion specialized UNIDO personnel working in the invited countries should participate in these workshops as well. They would thus be in a position to transmit the information gathered in these meetings to larger number interested individuals.

05/08/89 - Saturday

Morning

From the Brazilian Embassy telephoned Mr. Abdu Farajj one of the entrepreneurs who was named by the African Facility.

As it is he is very much interested in going to Brazil but his being small company he would not be able to finance his journey. He would be in a position to travel if someone paid for the airplane fares. I asked him to report to Mr. Rasmussen at UNIDO office, with no promises from my side.

Afternoon

I was invited by Mr. Laiser to an informal meeting to exchange some views about Brazil and Tanzania. Mr. Laiser would travel to Sweden, the following day 06/08/89.

06/08/89 - Sunday

I spent the day in informal meetings with the Brazilian Embassy personnel.

07/08/89 - Monday

Reported to UNIDO office where I informed Mr. Rasmussen on the weekend activities.

The Zambian Airways flight left Dar es Salaam 1:30 hours late at 14:00. The flight to Lusaka was via Nairobi. We arrived at Lusaka at 17:45 hours.

08/08/89 - Tuesday

At INDECO house I met Mr. L. Moonga Projects Officer - Agro-Industry to whom I spoke about sugar/ethanol and milling industries.

Zambia has only one sugar estate, the Zambia Sugar Company which is also a subsidiary of INDECO. Tate and Lyle is a shareholder being in charge of the estate and factory management. In Zambia ethanol is not mixed to petrol. They intend however to expand the sugar industry as the present 70000 tonnes produced annually are barely enough to supply the internal demand. Sugar-cane in Zambia as in the other countries visited must be irrigated.

The E.C. Milling Company has an installed capacity of 74880 tonnes per year of maize meal. However it is presently operating at 29% of its capacity due to lack of spare parts and constant machine breakdown.

The following products are produced by E.C. Mills:

1. Roller Meal - whole maize particles.
2. Breakfast Meal - purified product
3. Mealie Samp - maize grits.

A stockfeed plant works in parallel with the milling plant. It uses mainly the offals (wastes) of the milling plant. Presently it is working at 23% capacity.

The major constraint is the lack of concentrates. In the meanwhile the abattoir and Pork Products companies are disposing of large quantities of animal wastes (offals, blood, bones) which could be processed into animal meals .

The oil is not extracted from the maize germ offal. This causes the rancification of the product contributing to the poor quality of the stockfeed produced.

E.C. mills has outdated taiwanese hammermills and other equipment which is in part responsible for the low efficiency of E.C. Milling co.

Luncheon with r. Nkanza and Mr. Ernesto Perez.

Afternoon.

I spent the afternoon with the Brazilian Embassy Commercial Attaché visiting private organizations.

Evening.

Left Lusaka at 21:45 hours (1:15 hours late) in a British Airways flight to London.

09/08/89 - Wednesday.

Arrived in London at 8:15 local time. At the airport I tried to book a seat on the next available flight to Brazil which happened to be on Saturday night at 22:25 hours.

10 and 11/08/89

Nothing to report

12/08/89 - Saturday

Left for São Paulo on British airways flight

END OF JOURNEY

5. COMMENTS

As it was mentioned earlier the main objective of the mission to the five African nations was to identify their needs in terms of the Agro-industrial sector. However, in view of time constraint imposed by the airline schedules and limited budget this report should be considered by no means as definitive and final view on the above subject.

The following comments are based almost exclusively on the meetings held with local authorities and experts and to my personal views and experiences in these countries. To some extent UNIDO and local literature was used as reference. Most of the countries share the same general problems which affect the

agro-industrial sector. They are:

- Poor links between the industrial and primary sector (agriculture).
- Accute shortages of foreign exchange.
- Lack of industrial inputs (Specially packaging materials such as glass, tinplates and plastics).
- Poor management and maintainance.
- The market peculiarities are not always given the fair degree of importance in the establishment of new industrial projects.

5.1 Poor Links Between Agriculture and Industry

This is in my view one of the major causes of the poor performance of the agro industrial sector in some countries. The industries are some times established without seriously taking into consideration if farmers can supply them with the necessary inputs.

This is the case of ZPP in Zambia where not enough staughtering pigs are produced locally in order to keep a steady supply at animals.

It is also the case of the new and modern abattoirs in Maseru - Lesotho which is working at less than 20% capacity due to the farmer reluctance to sell their cattle. Herds in Lesotho are considered as a symbol of status and therefore are not staughtered on commercial basis.

Another reason for inefficiencies is weak commercial linkages among the agro-industries themselves which invariably

results in high imports contents of their final products.

5.2 Accutte Shortage Of Foreign Exchange

All the countries visited are suffering accute shortages of foreign exchange caused by several factors:

- Price drop of export commodities;
- Increased transportation cost;
- Armed conflicts with neighbouring countries;
- Decliming mineral deposits.

The shortages in foreign exchange have resulted in the non availability of spare parts and therefore it has become extremely difficult to give proper maintenance to manufacturing equipment.

These foreign currency shortages are also curtailing the possibilities of reequiping the plants with effecient machinery and up-dated technologies so necessary to maintian the full competitiveness and effectieness of the industry.

5.3. Lack of Industrial Inputs

The shortages in foreign exchange and the poor performance of the industry as a whole in these country, have resulted in the lack of industrial inputs specially packaging materials such as glass, tinsplate and plastics. This has affected specially the food processing companies in Zimbabwe.

5.4 Poor Management and Maintenance

Some of the problems faced by the industry are caused by poor management and by the non existence of adequate maintenance programmes.

This implies that training of both white collar and blue collar personnel must receive a fair degree of attention in the implementation or rehabilitation of any agro-industrial projects.

5.5. Market

The market peculiarities, are not always given a fair degree of importance in the establishment of industrial projects.

This problem normally occurs when the industries are built to manufacture non traditional products.

6. COUNTRY BRIEFS

6.1. Zambia

6.1.1. General Information

The Zambian economy is largely dependent on its mining sector to earn its foreign exchange. The most important minerals are: copper, cobalt, lead and zinc ores, which accounted for 95% of all export earnings. This sector however has been negatively affected by declining world prices and exhaustion of higher-grade

ore reserves.

On the other hand, the cultivated area has expanded considerably since 1980, and both climate and large unexploited areas allow further growth of this sector. As a result the importance of the agro-industry in this country tends to increase; the more so, if its considered that Zambia is a landlocked country, which depends upon transport routes that cross two unstable areas, Moçambique and South Africa.

6.1.2. Agro-Industrial Sector

The Zambian Industrial Sector is dominated by INDECO Group of Companies which accounts for 60 to 70% of the country's total industrial output. INDECO has a total of 45 subsidiaries, out which sixteen are food or agro-based companies.

These agro-industries include:

- 07 Maize Mills;
- 02 Breweries;
- 01 Sugar Company;
- 01 Coffee Processing Company;
- 01 Fruit cannery;
- 01 Cooking oil company;
- 01 Poultry Processing;
- 01 Bakery;
- Trading Company.

The above distribution represents a good cross-section of Zambia's agro-industry. The importance of the maize milling companies is evident Maize flour or mealie-meal is the staple food

of the country. The mealie-meal is heavily subsidized by government.

Farmers sell all their maize to the National Maize Board NAMBOARD, at artificially high prices. NAMBOARD then distributes maize to the mills at one third of the price. This arrangement keeps the maize mealie meal at low prices and the farmers happy. But at first glance one should think that government resources are being overstretched.

The agro-industrial sector, although is not very well developed, seems to satisfy the internal demands of the country.

The major constraints seem to be related to the underutilization of the equipment due to a number of reasons and to poor backward and forward linkages. While the stockfeed companies have paralysed their activities due to the non-availability of imported protein concentrates such as fish-meals, the meat processing industries are clogging up the sewage systems with wasted blood and animal offals. At the same time. his very same companies, complain about shortages of slaughtering animals, which in part, are not available due to shortages of good quality stockfeeds. In spite all these shortcomings the agro-industrial sector in Zambia has good development potentialities and has been receiving a lot of government attention which is encouraging production by both private and para-estatal sector firms. The priority activities include:

- stockfeeds;
- vegetable oils;
- fats.

6.1.3. Possible Areas of Cooperation

Maize milling, as the most important agro-industrial activity, is obviously one of the possible areas for co-operation. However, only new mills should be considered, as the existing ones are already being rehabilitated and do not require further assistance, according to INDECO sources.

In what concerns sugar, the only existing estate has established its production, which is barely enough to satisfy internal demand. Two new estates are being considered and with no doubt this is an area where Brazil, with its large experience and expertise, is fully qualified to participate.

In addition if it is considered that animal offals, blood and bones are being wasted without any benefit, and that there is an acute shortage of meat, bone and blood meals for stockfeeds, it becomes only evident that stockfeed and animal by products processing equipment will be very much welcomed in any cooperation arrangement.

Other areas of interest include:

- oilseed expressing equipment for sunflower cottonseeds, soyabean and groundnuts;
- coffee processing equipment;
- grain and oilseed cleaning facilities.

It must be stressed again that any new agro-industrial project should come fully integrated with agricultural technical assistance, to assure a steady supply of inputs.

6.2. Malawi

6.2.1. General Information

The services sector is the largest in the economy. It has only recently surpassed the agricultural sector which, nevertheless is still the most important employer.

Tabacco, sugar and tea are major export crops and responsible for most of Malawi's foreign exchange earnings.

Malawi, however, has practically run out of arable land; it has one of the highest population/land ratios in Africa. Any growth in the agricultural sector will have to be achieved through an increase in productivity.

A serious constraint to the development of the economy has been the breakdown of the transportation connections through Moçambique. Re-routing through other neighbouring countries is far from ideal. The only solution lies in the improvement of transport routes across Tanzania.

6.2.2. Agro-Industrial Sector

As an agricultural country most of industry is based on agro-allied processes. The government is a major investor in the manufacturing sector. Tabacco, textiles and sugar-ethanol sub-sectors are dominated by well established interests, which allow little room for newcomers.

Ethanol produced at the Dwangwa Sugar Project on the shores at Lake Malawi, is being mixed to gasoline. The Sucoma Sugar Estate still sells the sugar molasses to the stockfeed companies. There are plans, however, to build an ethanol plant in this estate as well, which will use molasses as raw material.

The growth at the small scale or informal sector has been hampered by lack of credit and the low buying power of the population. The high degree of the monopolization of the industry is another obstacle to growth in the small scale sector. Inter-industry linkages are not well developed.

The small scale-scale enterprises rarely buy or sell from the formal sector. They normally employ primitive technology but there are signs that medium scale enterprises engaged in grain milling and food processing would be receptive to new technology.

6.2.3. Possible Areas of Cooperation

The high degree of monopolization in the large scale industries would apparently represent an obstacle to Brazilian cooperation in this sector. However the Malawian Development Corporation showed interest in the Brazilian technology for ethanol production to be utilized at the Sucoma Sugar Project.

Coffee processing equipment (for cherry coffee) is also a very real possibility. Many tea estates in the south are also planting coffee. Depulpers, washers, roasters, grinders and packaging equipment might be of some interest to some medium and large scale estate owners.

The Small Enterprise Development Organization - SEDOM

and Rural Enterprise and Agrobusiness Development Institutions - READI could perhaps be interested in Brazil's experience in small scale maize mills and other processing equipment.

6.3. ZIMBABWE

6.3.1. General Information

With a per capita GDP of US\$ 817,00 Zimbabwe ranks significantly above the average for Sub-Saharan Africa. The agricultural sector's 13,8% share off GDP in 1984, is very low by African standards. However, this figure is not indicative of the sector's importance as an employer as more than 60% of the population is still engaged in agricultural production.

Zimbabwe is unique in Africa for the size of its manufacturing sector which is also highly diversified.

The country's major foreign exchange earner is mining. A wide range of minerals, from gold and asbestos to strategic metals such as nickel and chrome, is exported.

The intra-sectorial and inter-industry linkages are unusually well developed for African standards.

The most important industrial branches in 1986 were food products and beverages, textiles and wearing apparel, iron and fabricated metal products. The country boasts a growing spare parts and components industry.

In terms of the economic situation, drought and decreasing prices for minerals in the world market badly affected the contribution of mining and agriculture to the national

economy.

Zimbabwe's involvement in the regional conflict with South Africa has placed an extra burden on the economy as a sizeable part of the army is stationed in Moçambique to protect the Beira railway line, which is Zimbabwe's shortest route to the sea.

As it can be gathered the unstable political situation in the region and Zimbabwe's landlocked position, as well as lack of foreign exchange in part due to high defence expenditures, are the main obstacles for further industrial development.

6.3.2. Agro Industrial Sector

The industrial production in Zimbabwe is dominated by the food products and beverages sub-sectors.

Zimbabwe is virtually self-sufficient in all basic food needs such as maize, milk, meat etc. The food manufacturing sector on its own side has shown great efficiency in converting these inputs into the large diversity of foods and drinks which are available in the country. Also processed exports such as sugar, tea, coffee, beef, groundnuts and other finished products totalled almost 15% of total Zimbabwean exports.

The food industry, however, is being affected by some problems. According to the Food Manufacturers Association, the greatest threat to the viability of the food sector is the price controls which have seriously eroded the profit margins of industries. This has impeded companies from reinvesting into their plants. As a result much of the equipment being used in the food

sector is old and inefficient.

In order to maintain full effectiveness of the industry, urgent re-equipment with modern and efficient machinery, and up-dated technologies are needed specially in the milling and canning industries.

The whole food industry as a whole has been affected by shortages of packaging materials specially glass and plastics. There is only glass manufacturer in Zimbabwe.

6.3.3. Possible Areas for Cooperation

The agro-industrial sector in Zimbabwe is considerably more developed than in its neighbouring countries. Its requirements are more sophisticated and the assistance it would need would be more in the sense of modernizing the existing plants and equipment, specially in what concerns milling and canning industries.

The introduction of new equipment and technologies would be required more specifically in the line of flavour houses, citric acid, lactic acid, glacial acetic acid, starch, and other chemicals which are presently being imported.

They have a need for more sophisticated packaging systems; there are no tetrapack facilities, for example.

In terms of less sophisticated processing equipment, it must be kept in mind that Zimbabwe has a small but active industry which manufactures small scale equipment for farms and villages.

A local company, however, has for the past years imported a number of coffee processing plants from Brazil and is assembling them in some coffee producing areas in Zimbabwe. Perhaps it is a sub-sector which should not be overlooked in the workshop.

In what concerns the sugar and ethanol sub-sector the Industrial Development Corporation of Zimbabwe Limited is considering the production of polythylene and P.V.C. from ethanol. The project is also intended to produce sugar for the domestic and export markets. It is envisaged by IDC that the plant should be capable of producing 78 million liters of ethanol to be converted to 28000 t of polyethylene, 20000 t of PVC in annual figures. IDC is presently writing a reasiblility study on the above project.

6.4. LESOTHO

6.4.1. General Information

The Kingdom of Lesotho is one of the few countries in the world which is completely sorrounded by another, the Republic of Africa.

Some two-thirds of the national territory is mountainous and elevations range from 1500 m to in excess of 3000 m above sea level. The climate is unuasually cold by African Standards and frosts are common from May to September throught out the country.

Only 10% of the land is classified as arable and internal communications are complicated by topography.

The soils are very prone to erosion which if left unchecked could contribute even further to the reduction of the arable land, worsening the chronic food deficit.

Lesotho is almost entirely dependent on the Republic of South Africa from which it imports all its commercial energy and the bulk of its food and other commodities.

The most important share of its income derives from home-remittances made by migrants working in South Africa.

In terms of employment, agriculture is the largest domestic sector, followed by the service sector. About one-fifth of the entire labour force is employed in the South African Republic.

Most farming is undertaken for subsistence by peasant land holders. The most important crops are maize, sorghum, wheat, beans and peas. The acreage and production have remained stagnant for the past ten to twelve years.

The exploitation of Lesotho's major untapped natural recourse - hydroelectricity - will be executed as a joint venture with South Africa. The impact of this scheme on country's economy will be enormous.

Lesotho is a member of the South African Customs Union (Salu), which implies in the free entry of SA. products against which the local producers are sometimes unable to compete.

Also South African enterprises have been investing heavily in Lesotho, attracted by favourable investment incentives, this leaves little room for the development of indigenous

entrepreneurs.

The Government's Lesotho National Development Corporation LNDC, however has entered in a number of joint ventures with private industries but future development will depend upon South African Investors.

6.4.2. Agro Industrial Sector

Lesotho doesn't have many alternatives but to put emphasis on industries using renewable, agricultural resources. Agro-based industries given their potential to create employment, to generate foreign exchange, can be of great importance in Lesotho's economic development.

Rapid expansion of the agro-based industry, however, depends on a healthy agriculture and this seems not be the case in Lesotho.

The industries established in the country in the early eighties, which include two large flour mills, a dairy plant, a large scale beer and softdrink plant, a cannery and bakeries, can only partly be supported by domestically produced inputs, due to the supply problems of Lesotho agricultural sector. The improvement of the agricultural performance in Lesotho is an essential precondition before industrial development through agro-industries can be considered viable.

6.4.3. Possibilities of Cooperation

According to the local sources there are many areas

which require assistance such as: flour mills, fruit and vegetable canners, feed mills, Tanneries, meat processing, oil expression etc.

But as it was mentioned earlier this cooperation should only come integrated to agricultural technical assistance which should include the following topics:

- soil conservation;
- seed multiplication;
- feedlot systems;
- poultry and piggery projects;
- green house intensive farming.

The necessary inter-sectorial links should be emphasised in the technical assistance. Without the agricultural component any new agro based industry which is established in country runs the risk of being dependent on SA for the majority of its inputs.

6.5. UNITED REPUBLIC OF TANZANIA

6.5.1. General information

Tanzania's economy is dominated by subsistence agriculture. The major exports are cotton and coffee, as agricultural crops and diamonds.

Agriculture is the livelihood for 90% of the economically active population. Even so only 5% of the country's total area is cultivated and only 2% of the cultivated area is irrigated.

Past policies for the agricultural sector have proved

particularly unsuccessful leading to reduced crops and disruption of rural society. Reforms in the mid - 1980, have had positive effects increasing agricultural output and consequently improving the processing industry as well.

The climate and environmental conditions are varied enough to allow the growth of a wide range of crops (coffee, cotton, cashewnuts, sisal, tobacco, tea, pyrethrum, cocoa, maize, sorghum, wheat, potatoes, bananas, oilseeds, and fruits).

6.5.2. Agro Industrial Sector

Within the group agro-industries food manufacturing and textiles are the most important activities, followed by leather-based industries.

The main activities of the food manufacturing subsector relate to sugar, meat and dairy products, vegetable oils, grain milling products, fruit and vegetable canning and bakeries.

The main problem affecting the agro-industries result from a combined shortage of basic raw materials, power, water and investments.

Most agro-industrial companies in Tanzania are presently operating far below their installed capacities. One of the major reasons for this is the shortage of agricultural inputs. But there are other reasons as well and these include: obsolete machinery, poor management, deficient maintenance.

Failure to give proper attention to the highly dependent relationship between agriculture and industry has led to frequent shortages of agricultural raw material supplies for

the processing industries. As a result many agro-based industries were underutilized. This is the case of cashnut processing factories, oilseed-based industries, sugar factories, pyrethrum-extracting and food manufacturing industries.

The government is presently encouraging canning and preservation plants to reduce waste and spoilage of fruits and vegetables. This is the case also of cashew-apples which are lost in enormous quantities.

However, the success of the canning industry depends heavily on the rehabilitation of the Matchbox tinsplate factory in Dar-es-Salaam.

6.5.3. Possible Areas for Cooperation

In terms of agriculture a certain degree of cooperation between Tanzania and Brazil has already been going on.

Tanzania was visited in recent years by Brazilian experts on the following areas:

- Dairy Cattle and Tropical Pastures;
- Sugar-Cane and Ethanol;
- Cashew-nuts.

In June 1989 two Tanzanian cashew nut specialists travelled to Brazil where they visited research stations. The journey was sponsored by the World Bank. The Tanzanian government is undertaking a programme to rehabilitate the cashewnut sub-sector.

Concerning the agro-industrial sector emphasis should be given to small scale equipment and plants for isolated villages and farms (land communications in Tanzania are very precarious).

The following areas have been suggested by SIDO:

- Processing of fruits and vegetables;
- cold storage facilities for meat and dairy products;
- sun drying facilities for fruits;
- small scale plants for crystalline sugar;
- small scale plant for ethanol production;
- reduction of wastes of maize and wheat shelling processes.

7. SUMMARY

Below it is presented a summary of the areas of interest in terms of agro-industry for each the visited countries:

7.1. Zambia

Areas of interest:

- Large scale maize milling;
- Large scale sugar industry;
- Stockfeed plants;
- Animal by products processing equipment;
- Oilseed expressing equipment;
- Coffee processing equipment;
- Grain and oilseed cleaning facilities.

Nominee: Mr. Mulenga-Executive Director INDECO LIMITED.

7.2 MALAWI

Areas of interest:

- Large scale ethanol plant;
- Coffee processing equipment;
- Small scale maize mills;
- Small scale grain processing equipment.

Nominee: Name not available at the time of visit.

7.3. ZIMBABWE

Areas of interest:

- Large scale maize milling equipment;
- Cannery equipment in general;
- Packaging equipment;
- Flavours, citric acid, latic acid, starch, glacial acetic acid plants.
- Coffee processing plants;
- Sugar and ethanol large scale plants;

Nominee: Name not available at the time of visit.

7.4. LESOTHO

Areas of interest

- Flour milling equipment;
- Cannery equipment in general;
- Feed mill equipment;
- Meat processing equipment;
- Small scale vegetable oil expression equipment;

Nominee: Mr. Joseph S. Thamae - Chief Industrial Development Officer - Ministry of Trade and Industry Department of

Industry.

7.5. TANZANIA

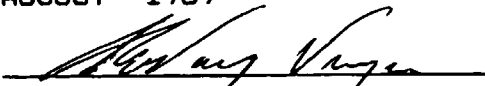
Areas of Interest:

- Small scale processing of fruit and vegetables;
- Cold storage facilities for meat and dairy products;
- Sun drying facilities for fruits;
- Small scale plants for crystalline sugar;
- Small scale plants for ethanol production;
- Reduction of wastes of maize and wheat shelling processes;

Nominee: Mr. Mike Laiser

Director and Development Small Industries
Development Organization SIDO.

AUGUST 1989


= ALEXANDRE SANZ VEIGA =

ANNEX I

PROGRAMME OF VISITS AND PERSONS MET

I. ZAMBIA (17 to 19 of July and 7/9 fo August 1989)

1. Brazilian Embassy

74 Independence Avenue 5th floor

P.O. Box 34 470 Lusaka.

Ms. Irene Vida Gala - Chargé D'Affairs

Mr. Fairchild N. Mumkasu

2. E.C. Milling Co.Ltd. P.O. Box 37266 Lusaka

Mr. E.H. Hojane - General Manager

Mr. R.L.H Musenge - Production Manager.

3. INDECO LIMITED - Indeco House, Buteko Place,

P.O. Box 31935 Lusaka.

Mr. M.S. Mulenga - Executive Director.

Mr. Ernesto Perez - UNIDO Technical Assistance Expert

Mr. Patrick L. Moonga - Projects Oficcer - Agro
Industry.

Mr. Allan A. Phiri - Production Analyst.

4. Mazembe Tractor Company Ltd.

P.O. Box 30457, Mungwi Road Lusaka.

Mr. Dennis C. Mwape - General Manager.

5. National Commission for Development Planning.

P.O. Box 50268 Lusaka.

Dr. P.K. Nkanza Project Evaluation Engineer.

Dr. Wajciech M. Hubner - UNIDO Consultant.

6. UNDP/UNIDO. - P.O. Box 31966, Lusaka.

Mr. Sakari Oksanen, UNIDO Junior Professional Officer

7. Woodgate Holdings Limited.

Woodgate House 3rd Floor P.O. Box 30570 Lusaka.

Mr. Geoffrey M. Samukonga/Executive Assistant to the
Chairman.

8. Zambia Pork Products Limited.

P.O. Box 31405.

Mr. Basil L. Walmsley, Technical Manager.

II. MALAWI (19 to 23 July 1989).

1. Malawi Development Corporation

Development House P.O. Box 566 Blantyre.

Mr. Vennie Y. Kapalamula, Projects Manager.

Mr. James F. Kalizang'oma, Deputy Projects Manager.

2. Ministry of Trade Industry and Tourism

Mr. Chilingulo - Chief Industrial Development Officer

Mr. M.Tsilizani, Principal Industrial Development
Officer.

3. READI - Rural Enterprises and Agrobusiness
Development Institution.

P.O. Box 30455 Lilongwe.

Mr. Don Henri - Project Coordinator.

4. UNDP/UNIDO - P.O. Box 30135 Lilongwe,3

Ms. Kerstin Leitner - UNDP - Resident Representative

Mr. Kari Kohtamäki - UNIDO - Junior Professional
Officer.

III. ZIMBABWE (23 to 28 July 1985).

1. Agrochemicals Association.

Corner Union ST/Angwa ST 11th Floor Harare.

Mr. S. Moyo, Chairman.

2. BRAZIL Trade & Turnkey Projects (Zimbabwe)

(Private) Limited.

P.O. Box 4957 Harare.

Mr. Jeremy Wakeford - Marketing Director

3. Brazilian Embassy

9th Floor, Old Mutual Centre Cnr Third Avenue/Stanley
street Harare.

Mr. Ralph Peter Handerson, Second Secretary.

4. Confederation of Zimbabwe Industries

P.O. Box 3794 Harare.

Mr. Joseph Foroma - Research Economist.

5. Industrial Development Corporation of Zimbabwe

Limited - P.O. Box 8531 - Causeway Harare.

Mr. P. Sibanda - Project Appraisal Manager.

Mr. C. Chitsora - Senior Engineer.

Mr. L. Chiviya - Senior Technologist.

6. Intermediate Technology Development Group.

Box 1744 Harare.

Mr. Ebbie Dengu - Country Representative.

7. Lyons Africa Management Resources.

P.O. Box 2322 Harare.

Mr. J.W. Slupinski, Technical Director and Chairman of
Food Manufacturers Association.

8. Mr. Mike Denley - Tobacco Dealer

P.O. Box 3045 Harare.

9. Ministry of Finance, Economic Planning and
Development.

P.Bag 7705 Causeway Harare.

Mr. T.T. Chifamba Assistant Secretary.

10 Ministry of Industry and Technology.

Old Mutual Center 5th Floor, Cnr Third Avenue/Stanley
Street Harare.

Mrs. T. Onyimo International Cooperation.

Mr. T. Kanyowa - Assistant Secretary Metals and
Electricals.

Mr. V. Vdzigena - Under Secretary - Ministry of
Lands Agriculture and Rural Resettlement.

Mr. I. N. Chasakara - S.A.O. Food and Drinks.

11. National Planning Agency

Private Bag 7705, Causeway Harare.

Mr. Augustine S. Nyamatora, Deputy Director Planning.

12. UNDP/UNIDO - P.O. Box 4775 Harare.

Mr. Hans Jorg Friedrich - Junior Professional
officer.

13. World Vision International Zimbabwe.

P.O. Box 2420 harare.

Mr. B.M.C. S. banda, Field Director.

IV. LESOTHO (28 July to 1st August 1989)

1. Basotho - Fruit and Vegetable Cannery.

Mr. Tladi Tshabala, Assistant Production Manager.

2. Ministry of Agriculture

Mr. Moeketsi Mokati, Senior Planning, Officer

Mr. Joseph L. Mokotyo - Chief Marketing Officer.

3. Ministry of Central Planning

Mrs. N. T. Moshoeshe, Agricultural Officer.

Mrs. Mapule Makoro, Planning Officer.

4. Ministry of Trade and Industry

Dept of Industry.

P.O. Box 747 Maseru 100.

Mr. A. Adhikari UNDP Chief Technical Adviser.

Mr. John B. Maieane - Commissioner for Industry.

Mr. Joseph S. Thamae - Chief Industry Development
Officer.

5. UNDP - P.O. Box 301 Maseru 100

Mr. Christian Lemaire - UNDP Deputy
Resident Representative.

Miss Anni Brejnholt - UNDP - Programme Officer.

Mr. Ibrahim Kurama Project Coordinator Development or
Rural Technology.

V. TANZANIA (2 TO 7 August 1989)

1. Brazilian Embassy

IPS Building 9th Floor Dar es Salaam.

Mrs. Maria Aparecida Weiss, 3rd Secretary

2. Farmlands Ltd/Tanzania Food Corporation

Dar es Salaam

Mr. Abdu Farajj.

3. Institute at Production Innovation I.P.I.

University of Dar es Salaam - P.O. Box 35075.

Mr. Klaus-Peter Störmer - Director I.P.I.

4. Machines Consultancy Ltd.

P.O. Box 1892 - Dar es Salaam.

Mr. Yusuf H. Mushi.

5. Small Industries Development Organization.

P.O. Box 2476 - Dar es Salaam.

Mr. Mike Laiser - Director Research and Development.

6. UNDP/UNIDO.

C/O UNDP, P.O. Box 9182 - Dar es Salaam

Mr. Jens Rasmussen - Programme Officer UNIDO/UNDP.