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REPORT OF THE ROUND-TABLE MEETING ON
INDUSTRIAL REHABILITATION,
LUSAKA, ZAMBIA, 8-10 MARCH 1989*

Studies on the rehabilitation of African industry

No. 5**

Prepared by the
Regional and Country Studies Branch
Industrial Policy and Perspectives Division

* Organized by UNIDO, in co-operation with the Industrial Development Corporation of Zambia and the Government of Zambia, represented by the Ministry of Commerce and Industry.

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I. INTRODUCTION AND OPENING SPEECHES

1. Introduction

Industrial rehabilitation of agro-based manufacturing in Zambia was the focus of a three day Round Table Meeting held in Lusaka from 8-10 March 1989. Organized by UNIDO, in co-operation with Zambia's Ministry of Commerce and Industry and the Industrial Development Corporation (INDECO), the meeting reviewed the findings and recommendations of a report entitled "The Regeneration of Zambian Manufacturing Industry with Emphasis on Agro-based Industries" prepared by UNIDO's Regional and Country Studies Branch (REG).² This diagnostic survey, which addresses both the major problems of Zambian manufacturing and the potential for regenerating the sector, was prepared after a month-long field mission to Zambia from May-June 1988. Applying a "top-down" approach to industrial rehabilitation, REG reviewed four plants in their total working environment. Issues and problems at the macro-economic, sector, sub-sector and branch levels were analysed as well as technical and physical aspects of plant recovery. The plants that were studied by the mission were determined to demonstrate good rehabilitation potential and linkages, and were viewed as priority industries by the Government, INDECO and the Zambian Industrial and Commercial Association (ZINCOM). These four plants were: Zambia Pork Products Ltd., E.C. Milling Co. Ltd., ZATCO Stockfeeds Ltd., and Kabwe Industrial Fabrics, Ltd.

The meeting provided the opportunity for representatives of the Zambian Government, the four firms, INDECO, and UNIDO to review the findings and recommendations of the report in order to determine follow-up action in the form of technical co-operation and assistance. Other participants included representatives from the World Bank; banking institutions; embassies of the Federal Republic of Germany, the Netherlands, Finland, India, and the United States; and multilateral and bilateral organizations (ILO, SIDA, FAO). The meeting presented a concrete programme for implementing the recommendations of the report in order to provide a lasting contribution to Zambia's economic development, especially its policy of development based on its own resources.

² The Regeneration of Zambian Manufacturing Industry with Emphasis on Agro-based industries. Special reports on industrial rehabilitation No. 1, PPD/R..9; 14 October 1988

See Plan of Action for Rehabilitation, p.9

2. Opening Speech by Honourable Minister J. Musaka, MCC,
Minister of Commerce and Industry

The Round Table Rehabilitation Meeting was opened on 8 March 1989 by Zambia's Minister of Commerce and Industry. Honourable Minister Musaka, MCC, stated that the quest for survival and a better standard of living were the driving forces behind industrialization. For developing countries there is the pressure to restructure quickly in order to narrow the gap between themselves and the developed countries. He commented critically on the history of this development gap by pointing to the direct correlation between colonialism and economic development. Since the poor countries of the world were often rich in raw materials, the decisive factor for the development status of a country was not primarily the possession, but the utilization of local raw resources. Another priority in Zambia's Government policies was the promotion of non-traditional exports, thereby increasing its foreign exchange-earning capacity. Both political aims could not be effected without industrial rehabilitation. The Honourable Minister stressed that in order to attract investment into a mixed economy as promoted by the Zambian Government, industrial rehabilitation had to pave the way. He therefore looked forward to the recommendations of the meeting and hoped it would prove to be a successful investment promotion exercise.

3. Opening speech and introduction to UNIDO's rehabilitation programme by
the Head of the UNIDO Delegation and UNIDO's Regional and Country
Studies Branch

In his opening address the Head of the UNIDO delegation and UNIDO's Regional and Country Studies Branch explained UNIDO's rehabilitation programme, the aim of which is to identify the major constraints for industry in the overall economic and policy framework, to assess prospects and constraints in individual, key agro-industrial plants, and then to mobilize and concentrate national and international resources and efforts to rehabilitate these plants. Intensified and focused international co-operation could generate a multiplier effect in industry and agriculture, thereby endorsing efforts to be undertaken by Zambian entities. The Head of the UNIDO delegation proposed, as a first step in this direction, a detailed short-term rehabilitation programme, including measures such as management consulting, assistance in financial and cost accounting, sales/purchasing, maintenance/repair, training of various categories of staff, and various external support measures. The next step would involve feasibility studies to determine the viability of investment in new equipment for the longer-term regeneration of the plants. The coincidence of the meeting with International Women's Day further suggested, within the framework of UNIDO's rehabilitation programme, efforts toward increased participation of women in the industrial development of African countries.

4. Background remarks on UNIDO's diagnostic rehabilitation survey programme and the organization and administration of the meeting by the Co-Chairman

The UNIDO Co-Chairman of the meeting then explained in more detail UNIDO's approach to rehabilitation as reflected in the diagnostic survey "The Regeneration of Zambian Manufacturing Industry with Emphasis on Agro-based Industries". Rather than limiting itself to purely technical or physical aspects of plant recovery, the UNIDO mission analysed the firm in its total working environment, thereby including constraints not only at the plant level, but also at the macro-economic, sector, sub-sector and branch levels as well.

The Co-Chairman explained that it was for this reason UNIDO took a "top-down" approach to rehabilitation. Starting at the macro level with the macro-economic and institutional factors which impinge on the performance of plants, the analysis descends through the sector, sub-sector and branch level analyses, and finally reaches the plant level. In order to determine environmental constraints to plant performance, UNIDO then assesses the rehabilitation requirements of individual plants in the opposite direction, from the bottom upwards. In so doing, UNIDO tries to assess what changes in the economic and institutional environment are required as a pre-condition for successful plant-level rehabilitation. This double perspective - top-down and bottom-up - in the rehabilitation approach ensures a thorough identification of requirements for the long-term economic viability of individual plants.

The Co-Chairman continued that in order to maximize the effect of rehabilitation expenditures and particularly to maximize the external or spread-over effects, UNIDO selected the plants according to two main criteria: first, they were within the agro-based industry which the Zambian Government has declared a priority industry which should receive special attention; second, the firms are interrelated, with strong backward linkages to agriculture and forward linkages to other firms, industries and sectors.

The Co-Chairman stressed that a major goal of the meeting was to encourage response from the participants, particularly bilateral and multilateral agencies, and to elaborate follow-up activities. In the long term, the most important goal of UNIDO's rehabilitation programme is to enable African countries, in this case Zambia, to do their own diagnostic surveys and be their own rehabilitators. The ultimate objective is to leave behind a lasting capacity and capability for Zambians to help themselves.

Later in the meeting the Co-Chairman resumed the idea of enabling Zambia to formulate its own consistent and coherent programme of industrial rehabilitation and guidance. He listed various UNIDO projects assisting the Investment Policy Department of the National Commission for Development Planning (IPD/NCDP) and the Industrial Planning Unit (IPU) in the Ministry of Commerce and Industry and pointed out INDECO's role in the economic regeneration process. All efforts toward rehabilitating individual plants and strengthening Zambia's manufacturing sector ultimately depend on the overall long-term recovery of the economy, however. Because the country's current resources are insufficient to tackle such large-scale recovery, the enthusiastic support of the international community is crucial.

II. GENERAL OBSERVATIONS AND RECOMMENDATIONS - PLANT PERFORMANCE

1. The status of the Zambian economic environment with emphasis on agro-related industries by Mr. Almquist, UNIDO consultant

Mr. Almquist, consultant and member of the UNIDO field mission to Zambia, then made observations on Zambia's economic environment and its prospects and deficiencies with respect to agro-based industries. After pointing out the importance of economic linkage effects demonstrated by the example of the fibre-processing industry, and the relevance of developing a domestic renewable raw material base, Mr. Almquist focussed on the reasons for low capacity utilization in Zambia. They are reflected in the following recommendations intended to improve the overall performance of plants:

- Repair of individual equipment and provision of necessary spare parts;
- redesign of process flow for greater efficiency and capacity;
- installation of equipment originally omitted;
- replacement of obsolete or undersized equipment;
- establishment of an in-house laboratory, and implementation of a quality control programme for routine monitoring and control of raw material and fiscal products. In addition, existing specialist laboratories should be strengthened and central laboratories should be established in the major provinces and Lusaka to provide analysis services.
- measures to improve personnel safety and health, including provision of protective equipment and enforcing their use; and
- appropriate measures to minimize the generation of in-plant solid, liquid and gaseous waste, including the installation of pollution control devices.

Furthermore, there is a need for increased utilization of professional expertise, a field where UNIDO might assist and co-operate.

Spare part constraints frequently result in production stops and substantial economic losses. Mr. Almquist gave the following major reasons for spare parts shortages:

- Insufficient domestic spare part capacity, combined with import dependence threatened by lack of foreign exchange;
- Zambian plant conditions causing increased wear and tear of machinery, which was built in industrialized countries for conditions prevailing there;
- shortage of spare part suppliers, especially for machinery that is no longer produced;
- bureaucratic hurdles in the timely importation of spare parts;
- frequent damage or loss of imported spare parts due to inadequate storage, handling or organizational control; and
- import duties increasing the cost of plant maintenance, thereby discouraging it and reducing capacity utilization.

The UNIDO consultant favoured the idea of an in-depth investigation and detailed classification of spare parts production, supply and needs in Zambia, and suggested this as a future field for UNIDO assistance. His recommendations for meeting the spare part bottlenecks include:

- 1) duty regulations for competing versus non-competing imports;
- 2) in-house workshops and regional control workshops;
- 3) establishment of a Spare Parts Agency within the SADCC region, possibly with UNIDO assistance;
- 4) maintenance routines, including prevention maintenance, reducing the need for spares; and
- 5) establishment of Zambian standards for equipment, which would facilitate their replacement.

Mr. Almquist concluded his presentation by stressing the importance of improving agriculture simultaneously with the rehabilitation and development of agro-industries. Reduced import dependence demonstrated by the example of the fibre-processing industry and improved quality of raw materials such as maize and sunflower seeds would be beneficial not only to agriculture itself, but to the rehabilitation process, due to the linkage effect.

2. Management, organization and monetary policies by Ms. Helen O'Neill,

UNIDO consultant

Ms. O'Neill, UNIDO consultant and member of the diagnostic survey team presented the team's major findings and recommendations regarding management and organization, marketing, import dependence, access to foreign exchange, and prices and pricing policy.

With respect to management and organization, the UNIDO consultant observed that weaknesses are found at the middle management and foreman and supervisory levels. The division of labour between senior and middle management should be improved so each can do a better job. At the plant level, lack of management information is a major weakness leading to unrealistic budgets - a situation which could be alleviated by introducing and utilizing computers in the management process.

With regard to marketing, Ms. O'Neill asked the crucial question: "How much marketing, if any, is necessary and at what point should the marketing effort in a company be accelerated?" The four firms - ZAPP, E.C. Milling, ZATCO and KIFCO - had weak or non-existent sales and marketing policies. In order for the output resulting from rehabilitation to be sold in a timely manner, the marketing function would have to improve. A simultaneous improvement in marketing, supply of inputs and supply of finished goods would promote faster turnover and a better cash flow position in the companies. At the national level, Zambia needs to strengthen its export marketing bodies.

According to the new agro-based industrialization strategy, import dependence is to be met by increased processing of domestic resources and by using the outputs of the agriculture sector as inputs to the manufacturing sector. Whereas import dependence on raw materials varied among the four firms examined, dependence on machinery and spare parts imports was common to all of them. Some spare parts can be made in Zambia, and to the extent that this is so, their production should be supported and protected. However, the

importation of machinery and spare parts which are at present not capable of being produced in Zambia should be facilitated with impediments such as tariffs, taxes, or bureaucratic procedures kept to a minimum.

The shortage of foreign exchange prevailing since 1980 was due to a general downturn in the economy and the collapse in the price of copper which provides over 90 per cent of Zambia's foreign exchange earnings. By promoting and diversifying its export base, Zambia would promote foreign exchange earnings. This, in turn, depends on the existence of a supporting economic and policy environment for manufacturers.

Regarding prices and pricing policy, a complex battery of price distortions and the inherent lack of synchronization creates serious problems for many manufacturers. When input prices increase and output prices are fixed, profits shrink or even turn into losses. Ultimately, selling prices have to cover costs as well as allow a level of profits to enable a firm to maintain its plant in good working order and replace it over time. The emergence of hidden subsidies, which might serve as a short-term remedy for survival, is a reaction to the widespread existence of price distortions, the ultimate cause of which is an over-complex policy on pricing and an institutional mechanism which is incapable of coping with it.

3. Presentation of UNIDO projects by the UNIDO Interregional Adviser for Pre-Investment analysis

The UNIDO Interregional Adviser for Pre-investment Analysis presented UNIDO's new and integrated approach to industrial rehabilitation in developing countries, putting UNIDO's Zambian rehabilitation study in the context of this overall technical assistance approach.

Stressing that UNIDO is first and foremost a technical assistance agency, with the main assistance being of a project nature, the speaker estimated some 50 per cent of UNIDO's both purely technical and economic projects to be devoted to rehabilitation. New in UNIDO's rehabilitation approach is the fact that it no longer tackles technical/economic development problems in isolation from each other, but rather acknowledges their interrelation. This integrated assessment is supported by a complex reservoir of resources both in technical areas such as agro-industry, metallurgy, engineering and the chemical industry, and in economic-related areas such as pre-investment analysis, management advice, small- and medium-scale enterprise development assistance, industrial planning, training, and environmental and energy assessment. UNIDO's industrial rehabilitation assistance must be viewed within the broader framework of government policy towards industrial restructuring in general, and the question of whether it is economically rational to rehabilitate an enterprise at all is inherent in the new approach.

UNIDO's Interregional Adviser explained that UNIDO's approach to industrial restructuring and rehabilitation has four stages. The first is the pre-diagnostic stage in which a survey is made of the country, sector and/or sub-sector to identify the potential candidate firms and subsequently choose the enterprises to be rehabilitated.

The second is the diagnostic stage in which the diagnostic rehabilitation analysis is made, short-term reorganization and rehabilitation measures carried out, and detailed medium- and long-term rehabilitation work plans for each aspect of the firm's operation are elaborated (management, pre-investment analysis, maintenance, MIS, plant layout, marketing and technology). Once the labour-intensive diagnostic analysis has been completed, a rather capital-intensive investment promotion forum is held as a third stage, bringing together potential joint-venture partners, representatives of bilateral and multilateral organizations, local industrialists, and representatives of development finance institutions to assist the country in the financing of the planned medium- and long-term rehabilitation measures. As the fourth stage of the rehabilitation programme, the international experts involved in the first and second phase assess the training needs in the area under rehabilitation.

In the case of Zambia, UNIDO was able to allocate resources from its regular budget to the rehabilitation survey as stage one of the overall rehabilitation programme, and additional resources will be provided to recruit a team of international experts to carry out the short-term rehabilitation of Kabwe Industrial Fabrics. However, UNIDO's financial resources are limited. To render the rehabilitation programme successful, the Government of Zambia and UNIDO depend on contributions from developed donor countries to UNIDO's Industrial Development Fund and other UNIDO trust funds.

4. Presentation of project concepts by Ms. O'Neill, UNIDO consultant

Ms. O'Neill, UNIDO consultant, presented the general project concepts elaborated by the field mission to Zambia. One repeated theme in the mission's general findings and recommendations was the need for specific policy changes at the national level. In many instances, what was called for was the very careful fine-tuning of policies already agreed upon in principle or actually being implemented. The government measures should also include an improvement of policy analysis capabilities, which could be strengthened by the following project concepts:

- Provision of expertise to redesign the tariff structure;
- provision of expertise for the synchronization of price changes for manufacturers' inputs/outputs;
- examination of the impact of a modified company taxation policy in order to promote the company's internal financing of rehabilitation and, at the national level, to generate revenue from tax profits.

Furthermore, the roles of INDECO's Economic Evaluation Unit and the Ministry of Commerce and Industry's Industrial Planning Unit should be expanded and strengthened.

Strengthening management capabilities is a crucial task to be tackled. Pertinent international co-operation project concepts would involve assistance in in-house training of middle management, study tours for middle management personnel, and installation of computer systems for routine work and training for users.

5. Summary of plant-level findings by Mr. Ndulo and Mr. Almquist,

UNIDO consultants

Mr. Ndulo and Mr. Almquist, UNIDO consultants, summarized the findings of the UNIDO field mission for the four companies - ZAPP, KIFCO, E.C. Milling and ZATCO Stockfeeds Ltd. They presented the mission's recommendations and the project concepts for each plant, covering the firm's management, organization, marketing, cost and price structure, physical plant and inputs.

III. PRESENTATION OF OTHER INDECO AND ZINCOM PROJECTS

INDECO and ZINCOM presented for the participants' information 4 other rehabilitation projects currently underway involving a milling plant, edible oil plant, sawmill, and intravenous fluids factory. Three projects for feasibility studies include expansion of a cannery, wine production, and a talc-mining and -processing plant. (See Annex 2 for detailed descriptions.)

IV. CONCLUDING DISCUSSION

As a result of the original diagnostic survey and discussions held during the meeting, the parties agreed to a set of detailed recommendations and an Action Plan to implement the recommendations. It was also agreed that (1) a follow-up meeting should be held in Vienna; (2) appropriate Zambian authorities should initiate requests for international technical assistance to be implemented; (3) appropriate Zambian authorities should undertake those actions recommended in the Action Plan which do not require external assistance; and (4) plant management should continue to carry out recommendations made in the diagnostic survey.

Various representatives of organizations in attendance (Polimex-Cekop, Poland; the Embassy of the Federal Republic of Germany; Standard Chartered Bank; CDC; FAO; and NCDP) expressed their satisfaction with the meeting and offered their co-operation and support. The Chairman of the meeting, Mr. Yamba of INDECO, concluded by emphasizing that follow-up action should be expeditiously undertaken and called upon INDECO, ZINCOM and UNIDO to jointly fulfill the tasks formulated during the meeting.

Each of the General Managers of the four companies expressed their agreement with the conclusions and recommendations of the UNIDO report as they related to their individual plants. They also endorsed UNIDO's programme of industrial rehabilitation which they saw as a new departure and a valuable basis for the regeneration of Zambian manufacturing industry.

V. PLAN OF ACTION FOR REHABILITATION

The UNIDO concept for plant rehabilitation embraces (i) physical reconstruction and upgrading of buildings, machinery and installations, (ii) necessary measures to ensure sufficient input supply of acceptable quality at the appropriate time, (iii) strengthening of management, organization and marketing functions, and (iv) recommendations for modifications of current policies. Close co-ordination, monitoring and follow-up are essential, and efforts must be made by all parties to ensure that momentum is not lost.

The Plan of Action provides guidance regarding actions to be taken by the different parties involved. It includes projects which are viewed as rehabilitation sub-projects as well various measures which are essential to an overall rehabilitation plan. The project framework has been prepared for a number of identified rehabilitation sub-projects; in such cases, the UNIDO project number is indicated in brackets after the project title.

Under each sub-project or action, the related proposed actions are enumerated to illustrate the action pattern. This further emphasizes the necessity to co-ordinate, monitor and follow-up the plan of action.

The time frame provided is based on the fact that the Zambian Government and enterprises accepted in general the UNIDO proposals for individual plant rehabilitation during the conference. According to official procedures, the starting point of an activity must be requested by a Ministry, a parastatal organization, or the enterprise subject to rehabilitation. Due to the unavoidable time lag between reception of a request and its implementation, the requests should be presented well ahead of time. As the projects are inter-connected, delay or failure to comply with the Plan of Action will ultimately have a detrimental effect on the rehabilitation procedure and its success.

Once the rehabilitation project is accepted, UNIDO will prepare project documents. The documents are used in the final procedure to attract the interest of potential financiers in the project(s) and to determine the scope of UNIDO/UNDP assistance. The project documents are made available to interested potential financiers, international lending institutions, bilateral aid organizations, and other commercial interests. It is anticipated that commitments will be made by financiers during or shortly after a Round Table conference, leading the rehabilitation project into its implementation phase.

The linkages between ZAPP, ECM, ZATCO and KIFCO are described in the full rehabilitation report The Regeneration of Zambian Manufacturing Industry with emphasis on Agro-based Industries, 14 October 1988 - . To reap full domestic benefit from the linkage effects, the co-ordination of timing between ZAPP, ECM and ZATCO in particular is of crucial importance. Assistance from other international organizations - UNCTAD, ITC and FAO - is required, as well as from Zambian Ministries, authorities and organizations. UNIDO will assist in co-ordinating and monitoring the preparation and implementation of the Plan of Action for Rehabilitation.

PLAN OF ACTIONA. General

1. Provide expertise to redesign tariff structure.
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO, and KIFCO.
 - (b) Proposed implementation: 1989
 - (c) Action/Initiative: MCI request UNIDO/UNCTAD assistance.
 - (d) Financing: UNDP and/or other international sources

2. Investigate reasons for PIC delays in implementing price increases. Provide expertise to synchronize changes in prices and costs for manufacturers.
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO, and KIFCO.
 - (b) Proposed implementation: 1989
 - (c) Action/Initiative: INDECO request UNIDO assistance.
 - (d) Financing: UNDP and/or other international sources

3. Modify company taxation policy to promote internal financing of rehabilitation.
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO, and KIFCO.
 - (b) Proposed implementation: 1989
 - (c) Action/Initiative: INDECO request UNIDO assistance.
 - (d) Financing: UNDP and/or other international sources

4. Expand the role of INDECO's Economic Evaluation Unit, and further strengthen the role of the Industrial Planning unit of MCI and the Investment Policy Department of NCDP.
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO and KIFCO.
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: INDECO request UNIDO assistance.
 - (d) Financing: UNDP and/or other international sources

5. Technical assistance in planning and design of plant rehabilitation, including contracting and commissioning procedures and specification of construction works and equipment. (ZAM/TAS/88/05)
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO and KIFCO.
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: INDECO, in co-operation with ZINCOM, request UNIDO assistance on behalf of ZAPP, ECM, ZATCO and KIFCO.
 - (d) Financing: UNIDO/UNDP (est. USD 157,200)

6. Technical assistance in the development of maintenance procedures and training focused on preventive maintenance. (ZAM/TAS/88/03)
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO and KIFCO.
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: INDECO, in co-operation with ZINCOM, request UNIDO assistance on behalf of ZAPP, ECM, ZATCO and KIFCO.
 - (d) Financing: UNIDO/UNDP (est.USD 157,200)

7. Feasibility study for establishing spare parts production in Zambia. (ZAM/FST/88/02)
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO and KIFCO.
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: INDECO, in co-operation with ZINCOM, request UNIDO assistance on behalf of ZAPP, ECM, ZATCO and KIFCO.
 - (d) Financing: UNIDO/UNDP (est. USD 38,600)

8. Technical assistance for technological assessment and appraisal of standardization.
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO and KIFCO.
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: INDECO request UNIDO assistance.
 - (d) Financing: UNDP and/or other international sources

9. Studies to determine the need for regional maintenance centres, workshops and laboratories. (ZAM/STU/88/06)
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO and KIFCO.
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: INDECO request UNIDO assistance.
 - (d) Financing: UNIDO/UNDP (est. USD 53,800)

10. Assistance for in-house training of middle management in manufacturing.
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO, KIFCO and activities proposed under A 11 below.
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: INDECO, in co-operation with ZINCOM, request ZINCO assistance.

11. Arrange study tours for middle-management in manufacturing.
 - (a) Related proposed actions:
Rehabilitation of ZAPP, ECM, ZATCO, KIFCO and activities proposed under A 10 above.
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: INDECO, in co-operation with ZINCOM, request UNIDO assistance.
 - (d) Financing: UNDP and/or other international sources

3. For all enterprises studied

1. Management training in computer-aided management, such as accounting, purchases, sales and maintenance. (ZAM/TAS/88/04)
 - (a) Related proposed actions: C 7 and C 31
 - (b) Proposed implementation: 1990-1993
 - (c) Action/Initiative: INECCO, in co-operation with ZINCOM, request UNIDO assistance.
 - (d) Financing: UNIDO/UNDP (est.USD 372,400)

C. Plant level projects

ZAPP

1. Advertise extensively through Zambian press, radio and TV.
 - (a) Related proposed actions: C.2
 - (b) Proposed implementation: 1989/90
 - (c) Action: ZAPP
2. As soon as possible, improve packaging and introduce taste-stands in supermarkets and townships to make ZAPP's name known.
 - (a) Related proposed actions: C.1
 - (b) Proposed implementation: 1989/90
 - (c) Action: ZAPP
3. Programmed course of training over a period of two years for local sales personnel as well as sales representatives in the provinces.
 - (a) Related proposed actions: -
 - (b) Proposed implementation: 1989-91
 - (c) Action/Initiative: ZAPP request ZIMCO assistance.
4. Perform a market survey in neighbouring PTA and SADCC countries.
 - (a) Related proposed actions: C.5
 - (b) Proposed implementation: 1992 - 94
 - (c) Action/Initiative: ZAPP request ITC assistance through ZEB.
 - (d) Possible financing: ITC
5. Promote sales in neighbouring countries through the creation of sales outlets and a system of representatives.
 - (a) Related proposed actions: C.4
 - (b) Proposed implementation: 1993 + 95
 - (c) Action/Initiative: ZAPP in co-operation with ZEB.

6. Provide refrigerated trucks to improve the system of transportation and deliveries.
 - (a) Related proposed actions: C.5
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: ZAPP request funding through INDECO - assist. UNIDO.
 - (d) Financing: bilateral funds

7. Upgrade skills in accounting department; switch pricing function to accounting department.
 - (a) Related proposed actions: 3.1
 - (b) Proposed implementation: 1989 - 91
 - (c) Action/Initiative: ZAPP request assistance from ZIMCO/NIPA/CBU.

8. Assistance in procuring equipment and supplies for an appropriate quality control laboratory, and training of laboratory technicians.
 - (a) Related proposed actions: A.5, C.9, C.10
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: ZAPP request UNIDO assistance through INDECO.
 - (d) Financing: UNIDO/UNDP (incl. in A.5 est. cost).

9. Feasibility study to determine the viability of expanding the processing department with a canning line and a line for prepared foods, in connection with assistance for planning of physical plant rehabilitation.
 - (a) Related proposed actions: A.5, C.4, C.5
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: ZAPP request UNIDO assistance through INDECO.
 - (d) Financing: UNDP and/or other international sources

10. Assistance in procuring finance for rehabilitating all plant, machinery and equipment.
 - (a) Related proposed actions: A.5, C.8, C.9
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: ZAPP request UNIDO assistance through INDECO.
 - (d) Financing: UNDP and/or other international sources.
 - (e) Possible funding organizations
 - Domestic: DBZ
 - International: ADB, bilateral funds, foreign commercial participation

11. Adopt necessary measures to make good quality stockfeed available at all times to the pig producers.
 - (a) Related proposed actions: C.12, C.14
 - (b) Proposed implementation: 1989 onward
 - (c) Action/Initiative: ZAPP request MAWD/ZCF action through INDECO.

12. Implement, as soon as possible, the Pig Production Assistance Project (PPAP) currently under review.
- (a) Related proposed actions: C.11, C.13, C.14
 - (b) Proposed implementation: 1989 onward
 - (c) Action/Initiative: ZAPP
13. Incorporate in the PPAP a breeding scheme organized and monitored by ZAPP.
- (a) Related proposed actions: C.12
 - (b) Proposed implementation: 1990
 - (c) Action/Initiative: ZAPP request MAWD/FAD assistance through INDECO.
 - (d) Financing: to be included in request.
14. Establish and enforce stricter and more specific rules for grading pig carcasses; introduce payment according to grade.
- (a) Related proposed actions: C.12, C.13
 - (b) Proposed implementation: 1990 onward
 - (c) Action/Initiative: ZAPP request MAWD action through INDECO.

ECM

15. Organize effective sales network.
- (a) Related proposed actions: B.1, C.19
 - (b) Proposed implementation: 1989 onward
 - (c) Action/Initiative: ECM
16. Advertise through nation-wide press, radio and TV.
- (a) Related proposed actions: C.15, C.19
 - (b) Proposed implementation: 1990/91 onward
 - (c) Action/Initiative: ECM
17. Perform market surveys in neighbouring countries.
- (a) Related proposed actions: C.18, C.22 (co-ordinate)
 - (b) Proposed implementation: 1992
 - (c) Action/Initiative: ECM request ITC assistance through ZEB.
18. Initiate sales promotion in neighbouring countries if market surveys are positive.
- (a) Related proposed actions: C.16, C.17, C.18, C.23 (co-ordinate)
 - (b) Proposed implementation: Pending results from 17 and when domestic availability of stockfeed ingredients permits.
 - (c) Action/Initiative: ECM request ZEB assistance.

ZATCO Stockfeeds Ltd.

19. Improve the distribution system.
- (a) Related proposed actions: C.15
 - (b) Proposed implementation: 1990
 - (c) Action/Initiative: ECM
20. Assistance in procuring finance for rehabilitation of plant and machinery.
- (a) Related proposed actions: A.5
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: ECM request UNIDO assistance through INDECO.
 - (d) Financing: UNDP and/or other international sources.
 - (e) Possible funding organizations
 - Domestic: DBZ
 - International: ADB, bilateral funds, foreign commercial participation
21. Advertise in domestic press, radio and TV to make ZATCO known.
- (a) Related proposed actions: -
 - (b) Proposed implementation: 1991/92
 - (c) Action/Initiative: ZATCO
22. Conduct market surveys in PTA countries.
- (a) Related proposed actions: C.17 (co-ordinate), C.23
 - (b) Proposed implementation: 1991/92
 - (c) Action/Initiative: ZATCO request ITC assistance through ZEC.
 - (d) Possible financing: ITC/UNDP
23. Initiate sales promotion in neighbouring countries if market outlooks are favourable.
- (a) Related activities proposed by UNIDO: see C.18 (co-ordinate), C.22
 - (b) Proposed implementation: 1992/93, or when the plant processing capacity and ingredient supply relative to domestic demand permits.
 - (c) Action/Initiative: ZATCO
24. Install bulk storage for grain and soyabeans, initially with capacities corresponding to about 50 per cent of annual demand, planned for later expansion.
- (a) Related proposed actions: A.5, C.26
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: ZATCO, alt.1 - action as deemed appropriate with the view of self-financing, alt.2 - ZATCO request UNIDO assistance to ensure co-ordination with rehabilitation action.
 - (d) Financing: alt.1 - self-financing, alt.2 - to be included in rehabilitation programme.

25. Establish an in-house laboratory at ZATCO, and train laboratory staff.
- (a) Related proposed actions: A.5, B.1, C.26
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: ZATCO request UNIDO assistance in conjunction with A.5
 - (d) Financing: UNIDO/UNDP (training component); equipment to be included in funding of rehabilitation programme.
26. Assistance in procuring finance for rehabilitation of plant and machinery.
- (a) Related proposed actions: A.5, C.24, C.25
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: ZATCO request UNIDO assistance.
 - (d) Financing: UNDP and/or other international sources.
 - (e) Possible funding organizations
 - Domestic: EBZ
 - International: ADB, bilateral funds, foreign commercial participation

KIFCO

27. In addition to direct personal sales, undertake an extensive advertising campaign through press, radio and TV.
- (a) Related proposed actions: C.30
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: KIFCO
28. Perform market studies in neighbouring countries.
- (a) Related proposed actions: C.29
 - (b) Proposed implementation: 1993 or later, depending on availability of products for export.
 - (c) Action/Initiative: KIFCO request ITC assistance through ZEB.
 - (d) Possible financing: ITC/UNDP
29. Promote export sales by participating in trade fairs and establishing sales outlets in neighbouring countries.
- (a) Related proposed actions: C.28
 - (b) Proposed implementation: Pending result from activities C.28
 - (c) Action/Initiative: KIFCO request ZEB assistance.
30. Programmed course of training over a period of two years for local sales representatives in the provinces.
- (a) Related proposed actions: C.27
 - (b) Proposed implementation: 1990/91
 - (c) Action/Initiative: KIFCO request ZIMCO assistance through INDECO.

31. Upgrade skills in accounting department.
- (a) Related proposed actions: 3.1
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: KIFCO request ZIMCO/NIPA/CBU assistance through INDECO.
32. Investigate alternative sources of synthetic raw materials, rather than relying on international trading agencies.
- (a) Related proposed actions: -
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: KIFCO request ITC assistance through ZEB.
 - (d) Possible financing: ITC/UNDP
33. Assistance to the Kenaf Development Programme for plant improvement, development of better cultivation practices adapted to small farms as well as commercial units, and the adoption of appropriate processing technology at farm and factory levels.
- (a) Related proposed actions: C.34
 - (b) Proposed implementation: 1990 onward
 - (c) Action/Initiative: KIFCO request MAWD/FAO/UNIDO assistance through INDECO.
 - (d) Possible financing: FAO/UNDP
34. Studies to improve processing and bag manufacturing methods to widen the use of kenaf fabric bags to include their use for commodities such as mealie meal and sugar.
- (a) Related activities proposed by UNIDO: C.33
 - (b) Proposed implementation: 1990
 - (c) Action/Initiative: KIFCO request UNIDO assistance through INDECO.
 - (d) Possible financing: UNDP and/or other international sources
35. Assistance in procuring finance for rehabilitating all plant machinery and equipment.
- (a) Related activities proposed by UNIDO: A.5
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: KIFCO request UNIDO assistance through INDECO.
 - (d) Financing: UNDP and/or other international sources

J. Associated projects

1. Feasibility study for a regional slaughterhouse rendering plant in the Lusaka region.
 - (a) Related proposed actions: rehabilitation of ZAPP, ECM and ZATCO.
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: ZAPP request UNIDO assistance through INDECO.
 - (d) Financing: UNDP and/or other international sources

2. Assistance to procure finance for establishment of a rendering plant.
 - (a) Related proposed actions: D.1
 - (b) Proposed implementation: 1989/90
 - (c) Action/Initiative: ZAPP request UNIDO assistance through INDECO.
 - (d) Possible financing: UNDP and/or other international sources

3. Assistance for design, procurement, supervision and commissioning of a rendering plant.
 - (a) Related proposed actions: D.1, D.2
 - (b) Proposed implementation: 1990
 - (c) Action/Initiative: ZAPP request UNIDO assistance through INDECO.
 - (d) Possible financing: UNDP and/or other international sources

4. Improve the quality of grains and oilbearing seeds; specifically, remove impurities as early as possible in handling chain.
 - (a) Related proposed actions: rehabilitation of ECM and ZATCO.
 - (b) Proposed implementation: 1990 onward
 - (c) Action/Initiative: INDECO in co-operation with ZINCOM request MAWD/ZCF action.

ANNEX I

LIST OF PARTICIPANTS

1. Mr. M. BANDA, Manager, R&D, Zambia National Commercial Bank
2. Mr. F. BEINDIEK, Second Secretary, Embassy of FRG
3. Mr. G.A. BHACKO, INDECO
4. Ms. H.C. CHILEPE, INDECO
5. Mr. C. CHIZINGA, Mutende Investments
6. Mr. S. DAFROWSKI, POLIMEX-DEKOP Ltd. Co., Poland
7. Mr. M. DAKA, Ministry of Commerce and Industry
8. Ms. M.K. EL-SAYED
9. Mr. F. HAVER BROEZE, First Secretary, Royal Netherlands Embassy
10. Mr. A.H. BEMANE, General Manager, E.C. Milling
11. Mr. M. IMARINLO, Ministry of Commerce and Industry
12. Mr. M. KAARTAIN, Embassy of Finland
13. Ms. Y. KAPEYA, Ministry of Commerce and Industry
14. Mr. M.J. KASARO, ZATCO Stockfeeds Ltd.
15. Mr. S. KHAN, Senior Economist, World Bank
16. Mr. N. KUMA, High Commissioner of India
17. Mr. M. MALATSI, FAO
18. Mr. K. MILLER, US Embassy
19. Mr. Z. MOLDAWA, Trade Representative, Zimbabwe
20. Mr. P. MONGA, NCDP
21. Mr. P. MOONGA, INDECO
22. Mr. K.C. MUBITA, INDECO
23. Mr. J.L. MUSA, Chief Accountant, E.C. Milling
24. Mr. R.L.H. MUSENCE, Production Manager, E.C. Milling
25. Hon. Minister D. MUSUKA, MCC, Ministry of Commerce and Industry
26. Mr. F. MUTALE, ILO/SATEP
27. Mr. A. MWAPE, Manager/Research, Bank of Zambia
28. Mr. G. NDHLOVU, Appraisal Manager, Standard Chartered Bank Ltd.
29. Mr. M. NGATUNGA, East African Development Bank, Uganda
30. Mr. J. NJOLOMBA, Mutende Investment
31. Mr. B. PORTER, US Embassy
32. Mr. S. SHIMUKOWA, KIFCO
33. Mr. F. SIMENDA, General Manager, ZAPP
34. Mr. S. SUENSSON, SIDA
35. Mr. A. TOLENTINO, Regional Adviser, ILO
36. Mr. G. TYLER, CDC
37. Mr. B. WALMSLEY, Technical Manager, ZAPP
38. Prof. F.D. YAMBA, INDECO

UNIDO

38. Head, IPP/REG
39. Interregional Adviser for Pre-Investment Analysis
40. Backstopping project officer, IPP/REG
41. Mr. B. ALMQUIST, UNIDO consultant
42. Mr. M. NDULO, UNIDO consultant
43. Ms. H. O'NEILL, UNIDO consultant

UNDP, Lusaka

44. Mr. T. SCHROLL, SIDFA
45. Mr. S. OKSANEN, JPO

ANNEX 2**PRESENTATION OF INVESTMENT AND REHABILITATION PROJECTS BY****INDECO/ZINCON REPRESENTATIVES****1. Presentation of rehabilitation and feasibility projects by Mrs. Helen****Chilube, Corporate and Economic Planning Manager****A - Rehabilitation**

- (a) INDECO Milling Ltd.
- (b) ROP-Edible Oil Plant
- (c) Intravenous Fluids Factory
- (d) Zambezi Sawmill

B- Feasibility

- (a) Expansion of Mwinilunga Canneries Ltd.
- (b) Masuki Wine Project
- (c) Talc-Mining and -Processing Plant

A summary of these projects is given in the following.

A - Rehabilitation projects**(a) INDECO Milling Ltd. Maize Mill Plant**

The INDECO Milling Maize Mill Plant in Ndola is one of the major producers of maize meal in the Copperbelt region of Zambia. Market shares are distributed almost evenly between the six major mills at 14-18 per cent since 1983. However, INDECO Milling's share has steadily fallen with production output declining by 5 per cent between 1983 and 1987. The quality of the products has also been deteriorating over the same period.

It has been established that the decline in both quantity and quality of products has been due to the poor technical state of the plant. The rehabilitation is, therefore, aimed at refurbishing it in order to improve its operational efficiency. Consequently, market share will be restored to 18 per cent, and the quality of the maize meal will be improved. There will be slight increase in capacity from 240 MT/24 hours to 264 MT/24 hours.

The total project cost is estimated at US \$3.8 million, US \$3.4 million being the foreign cost component, and the balance of US \$0.4 million being local cost. A detailed feasibility study is available on the project as completed by GOPA Consultants of West Germany in September, 1988.

(b) ROP's Edible Oil Plant

The project concept is to rehabilitate the cotton seed and soya bean plants and instal a solvent extraction plant. This will enhance the processing facilities for cotton seeds and soya beans so as to permit continuous operation and increase the processing ratio to its full capacity of 48 t/d for cotton seeds and 24 t/d for soya beans.

In order to improve the yield of edible oil, a solvent extraction device will be installed. As a result, quality of animal feed, a by-product, will also be improved.

The project cost is estimated at Y 1,290 Million (K 105.39 Million) for plant and machinery only. It is recommended that the project be financed either through a grant or a long-term, interest-free loan. A feasibility study is available on the project as completed by the Japan Consulting Institute (JCI) in January, 1989.

(c) Intravenous Fluids Factory

The Intravenous Fluids Factory has production capacity of 1600,000 bags per annum. However, due to old age of plant and machinery (installed more than 10 years ago), the production capacity has deteriorated by 10 per cent annually. Plans to rehabilitate the plant were mooted wayback in 1987 but they have not materialized due to lack of finance.

The objectives of the IVS factory rehabilitation are as follows:

- (a) To arrest deterioration in plant capacity and restore capacity to installed level.
- (b) To save maintenance costs of various equipment including the steam generator, autoclaves, water treatment plants and compressor.
- (c) To assure supply of vital life-saving drugs, namely intravenous fluids.
- (d) The renewal of the equipment will also ensure the smooth running of the injectables manufacturing plant, which will depend for some of its services on the IVS plants such as the water treatment plant and steam generation unit.

Total project cost is estimated at K 8.6 million, of which K 5.6 million is in foreign currency. The foreign currency portion is mainly for procurement of replacement machinery.

(d) Zambezi Sawmills

The original project concept was to rehabilitate the two sawmills at Sesneke and Mulobezi and the factory at Livingstone. However, this was not realized due to lack of finance.

The management of the company has therefore proposed to carry out a mini-rehabilitation in order to arrest the fall in production estimated at a rate of 15 per cent annually.

The company has capacity to produce 5000 ccm of sleepers and 7000 ccm of sawntimber, but present production levels average about 30 per cent of the installed capacity. The local demand for sleepers is estimated at 11500 ccm, while sawntimber demand is estimated at 3000 ccm. However, there is a lot of export potential for sawntimber in Europe and RSA.

The total project cost is estimated at K 15.7 million, out of which K 6.49 million is the foreign cost component and K 8.64 million the local component.

A feasibility study report on a rehabilitation completed by BC Berlin Consult is available.

B. Projects for Feasibility Studies

(a) Expansion of Mwinilunga Canneries Ltd.

Mwinilunga Canneries Ltd. has been in operation since the early 1970s. The initial investment was dedicated to a plant capable of processing 500 Mt of raw pineapples into various canned pineapple products such as chunks, rings and juice.

The main objective of this project is to re-orient the core business of the company from canning operations to production of concentrated bulk pineapple juice for soft drinks manufacturing companies based in the Copperbelt and in Lusaka. The plant is estimated to process 20,000 Mt of pineapples into juice concentrate annually.

The re-orientation of Mwinilunga Canneries Ltd. from canning operations to production of bulk juice for soft drink manufacturers has very good prospect as a viable venture both financially and economically.

The major raw material in the form of pineapples is available in the Mwinilunga area. The project will contribute to increasing the income of peasant farmers in the area. It will also enhance the economic development of the district. The firm would therefore require funds for a feasibility study on this project.

(b) The Masuku Wine Project

Following the successful production of wine from Masuku under laboratory conditions jointly by the National Council for Scientific Research (NSCR) and National Breweries Ltd. (NBL), it has been decided to evaluate the feasibility of Masuku wine production on a commercial scale.

Consequently, NSCR and INDECO have agreed to undertake a feasibility study to evaluate the following major areas:

- Confirm the wine market size, establish market segments, price levels, distribution channels and determine plant capacity.
- Assess raw material requirements, including availability, organization and supply of Masuku fruits, as well as the cost of these raw materials.
- Establish the requisite plants and equipment, sources of supply, cost etc.
- Design plant lay-outs, and estimate costs for civil works and plant construction.
- Identify manpower requirements, training needs, labour costs etc.
- Establish investment costs and identify the means to finance them.
- Establish the operating costs of the plants with regard to raw materials, labour power, utilities, factory overheads, administrative overheads etc.
- Carry out a financial appraisal of the project to enable an informed decision on the proposed investment.

INDECO is soliciting possible financial assistance for the envisaged feasibility study.

(c) Talc-Mining and -Processing Plant

In line with the new Economic Recovery Programme, which emphasizes export promotion based on local resources, INDECO believes that the available talc deposits and processing base give scope for attaining these two goals.

In order to achieve this, however, additional investment is necessary to mine and process the talc to export quality levels, particularly with regard to cosmetic grade talc. Consequently, there is need for a feasibility study to determine the market demand, plant capacity, production processes, investment levels and prices of the talc to be produced.

The terms of reference for the study are the following:

- The study will identify the types and quality of talc and its total effective demand in the PTA, SADCC and West European markets. On this basis the study will compute salable volumes and determine the optimum plant capacity to satisfy this market demand at economic prices.
- Describe the availability, quantity, quality and cost of raw materials and inputs to be used in the production of talc;
- Describe and justify the location of the talc-mining and -processing plants taking into account proximity to raw materials, markets, transport costs, and other socio-economic infrastructure;
- Select and describe the proposed production programme, and on this basis select and justify the technology to be employed. Determine the requisite plants and equipment, and estimate the associated investment costs of both civil works and plants equipment;
- Describe the operations and services required to achieve target production, and group these activities into cost centres or functional groupings. Select an optimum organizational structure;
- Translate the operational and service activities into requisite skills and manning levels;
- Determine and provide a programme of project implementation and supply a time-related budget;
- The study will calculate the total investment of the project in both foreign and local costs, compute the total production costs and generate pro forma financial statements including profit and loss accounts, balance sheets, cash flows, etc.

In conclusion, the study will demonstrate to INDECO the feasibility of the project and recommend any appropriate course of action. INDECO requires the necessary financial assistance to carry out the feasibility study.

2. Presentation of additional investment and rehabilitation projects by INJECO and ZINCOM representatives

On behalf of ZINCOM, Mr. Ebenkele, Chief Executive of the organization, presented projects for the following firms:

- (a) Apollo Steel Company Ltd.
- (b) MDM Engineering Company Ltd.
- (c) Northland Agricultural Ltd.

A summary of these projects is given in the following:

(a) Apollo Steel Company Ltd.:
Local manufacture of agricultural implements

Apollo Steel Company Ltd. is a wholly indigenous, private company. It specializes in mechanical engineering, construction and manufacture of a range of steel products.

The project is meant for the rehabilitation of existing capacity to enhance the production of agricultural implements and hence does not require additional installation of equipment. The prime objective is to increase capacity utilization which now stands at 50 per cent due to foreign exchange constraints.

The US \$251,762 being requested for in form of foreign assistance is for the importation of replacement machinery and financing of overhead costs. The company also needs technical assistance (support personnel) especially in the initial design phase.

Prefeasibility studies have been done and the project has been in progress over the last two years. The 1989/90 turnover is projected at K 5 million

(b) MDM Engineering Company Ltd.:
Expanding MDM'S engineering capacity

The company has many years of experience in the forging and machine industry. In 1988 the turnover was K 8.7 million.

The project wishes to rehabilitate and expand the production of, inter alia, forged spike hoes, axes, hatches, picks, shovels, spades, hand agricultural tools, disc ploughs, cultivators, narrows, planters, shellers, threshers, and soil preparation equipment. The company is seeking US \$1.94 million in foreign assistance to import machine shop and auxiliary equipment from the Republic of South Africa, India, and the United Kingdom.

The project aims at reducing the importation of basic agricultural implements, creating new jobs and earning the country foreign exchange through export of its products into the SADCC region.

The company envisages a 33 per cent pre-tax profit, a 17 per cent post-tax profit and a return on investment of 26 per cent. Project pre-feasibility studies have already been done.

(c) Northland Agricultural Ltd.:
Manufacturing agricultural hand tools

The company has more than ten years of experience in the manufacture of agricultural equipment. It has also tremendous experience in the manufacture of mining equipment and has been a regular supplier to the mining industry on the Copperbelt for over twelve years.

The objective of the project is twofold: to rehabilitate existing capacity; and for small-scale farming, to diversify production into the manufacture of a wide range of agricultural hand tools like picks, mattocks, axes, matchets, hoes, ploughs, harrows, etc. These are presently being imported. However, estimated output is also earmarked for export to SADCC member countries.

The total foreign assistance requested amounts to US \$1,796,000. This figure would cover costs for the importation of machinery, tools, spare parts and critical raw materials. The implementation has been spread over two years (1989/90) and will create 150 new jobs.

The company has a full complement of highly qualified staff and consequently does not require personnel reinforcement.

The assistance being requested will also regard expansion of the company's inputs into the mining industry.