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UNITED NATIONS DEVELOPMENT PROGRAMME

UNITED NATIONS CAPITAL DEVELOPMENT FUND

UGANDA

Manufacture of Agricultural Tools, Implements and Farm Machinery

UGA/86/15 (UNDP Project Number)

and

UGA/80/C06 (UNCDF Project Number)

Final Evaluation Report

Mission Members:

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December 1996

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APPENDICES

LIST OF ABBREVIATIONS

ADP	Agricultural Development Project (financed by World Bank and now terminated)
ADP	Animal Draft Power (normally called Draft Animal Power or DAP elsewhere)
AEATRI	Agricultural Engineering and Appropriate Technology Research Institute
CSDP	Cotton Subsector Development Project (financed by World Bank)
CPE	Chief Production Engineer (of SAIMMCO)
GM	General Manager
GoU	Government of Uganda
MAAIF	Ministry of Agriculture, Animal Industries and Fisheries
MAGRIC	MAGRIC (Uganda) Ltd - a private sector company based in Kampala
NARO	National Agricultural Research Organisation
NPD	National Project Director
PE	Production Engineer (of SAIMMCO)
PPER	Project Performance Evaluation Report
PRODOC	Project Document
R&D	Research and Development
SAARI	Serere Agricultural and Livestock Research Institute
SAIMMCO	Soroti Agricultural Implements and Machinery Manufacturing Company
SCRP	Smallholder Cotton Rehabilitation Project (financed by World Bank)
SOCADIDO	Soroti Catholic Diocesan Development Organisation
TPR	Tripartite Review
UCB	Uganda Commercial Bank
UCD	UNIDO Country Director
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization

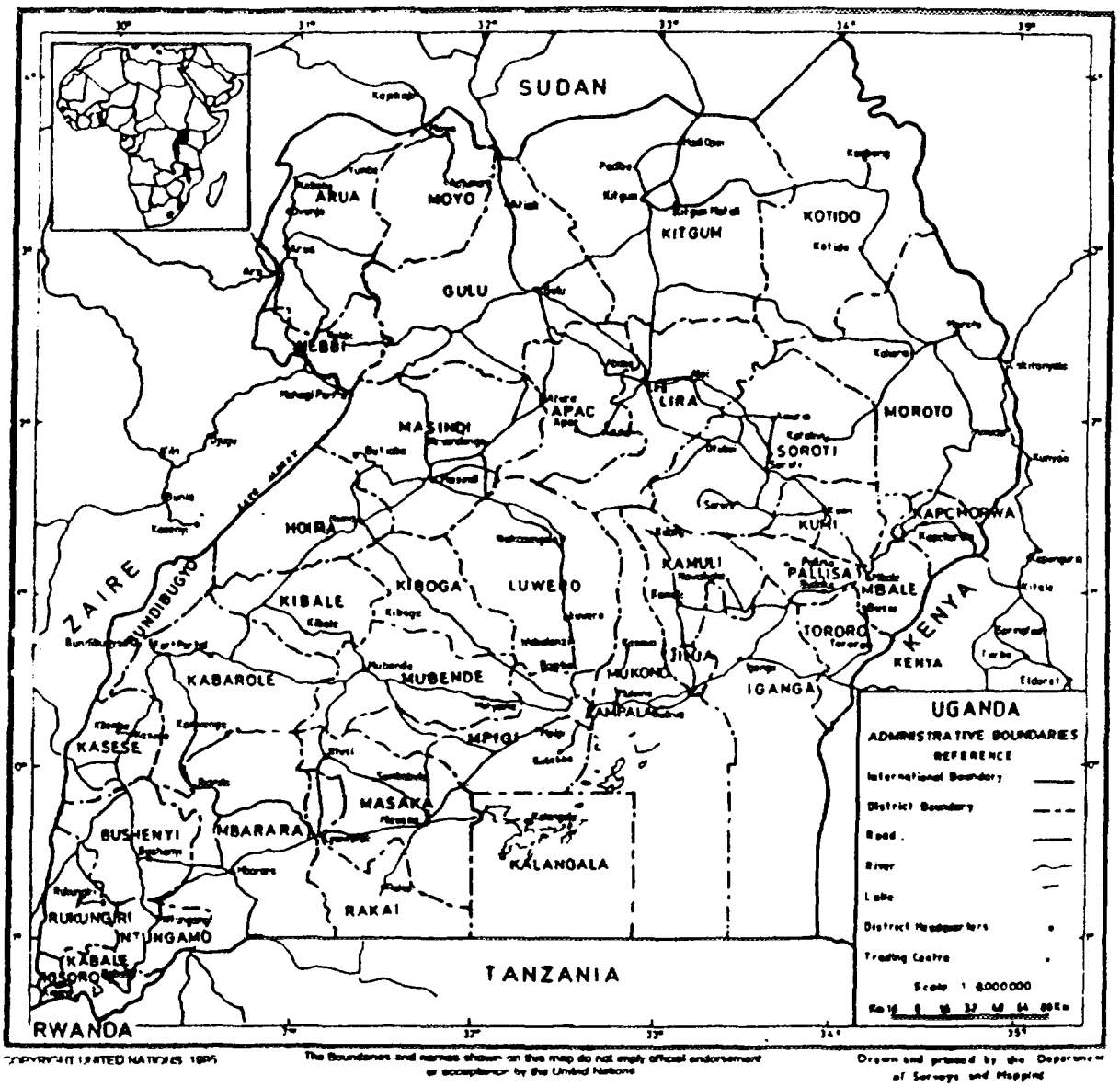


Fig. 1 Map showing the Districts of Uganda. SAIMMCO is located at Soroti in Soroti District and the project area covers the Northeastern region.

SUMMARY OF PROJECT EVALUATION

I. Basic Project Data

Country:	Uganda	**Total Project Cost:**	**$US 4,716,000**
Full Project Nos:	UGA/80/C06 UGA/86/015	**Financing:** **- UNCDF:** **- UNDP (Budget "A"):** *- UNDP (Budget "1" 1996)* **- Government:**	 **2,415,000** **1,716,000** *1,738,518* **585,000**
Project Title:	Manufacture of Agricultural Tools, Implements, and Farm Machinery	**UNCDF disbursements at time of Evaluation:**	**2,222,441** (through year end 1995)
Sector:	Industry	**Approval date:**	14 August 1987
Sub-sector:		**Starting Date:**	February 1993
Government Executing Agency:	Ministries of Agriculture & Finance	**Completion Date:**	anticipated January, 1997
United Nations Co-operating Agencies:	UNIDO UNDP	**Evaluation Date:**	October 1996

II. Background

A privately owned farm equipment manufacturing and repair workshop was established in Soroti in 1967, later being taken over by the Teso Cooperative Union in 1972. This then became the Low Cost Farm Equipment Project under the Ministry of Agriculture in 1976. Civil unrest severely affected workshop activities from 1979 which lead UNCDF and UNIDO to be involved in discussing plans with the GoU concerning rehabilitation work. This eventually resulted in the formulation of the two project documents (the one concerning UNCDF and the other, UNDP assistance); these were signed by the three partners in August 1987.

The Northeastern region of Uganda saw the introduction of mechanised agriculture through the employment of draft oxen from early in the 20th century. There is little doubt that

the rapid growth in its adoption resulted largely from the cash crop production of cotton. However the disturbances which occured in the region from 1979, together with the insurgency from 1987 to the early 1990's are estimated to have caused a loss of some 1.2 million head of cattle in the North and Northeastern regions of the country (the target area of the project).

As stability returned to the region, there was cause to reflect upon the origins of the project signed in 1987 and which was focused not only on rehabilitating the Soroti based factory, but also on manufacturing replacement agricultural implements and spare parts in considerable numbers. Revised estimates of production requirements were made during a preparatory study by GEMCO in 1990 but doubts as to the true production requirements were expressed in 1991 during a UNCDF support mission. By this time, the restocking programme of cattle, with priority given to young draft oxen, was beginning to become noticeable in the region but it was also realised that although stock had disappeared during the troubles, farm implements still remained in large quantities, although badly needing repair and spare parts.

Once the UNIDO sub-contractor commenced execution of the project in February 1993, an Inception Report was prepared which indicated the advisability of (a) manufacturing a plough type which was already known locally - called the "Sungura" in this region (b) that the ox cart and hammer mill to be manufactured be improved versions of those previously manufactured in Soroti and (c) that the total cost of equipment list could be reduced whilst still maintaining these output targets.

III. The Projects

The UNCDF project UGA/80/C06 was designed to provide funds to rehabilitate and equip the factory/workshop in Soroti so as to enable it to expand its manufacturing capacity, enhance its management/manufacturing/service capabilities and market its products.

The UNDP project UGA/86/015 was designed with the same objectives as outlined in the previous paragraph but the funds were to be allocated for the technical assistance inputs, together with supplementary costs involving items such as mission costs, study tours, transport equipment, expendable equipment, etc.

The executing agency sub-contracted project realisation activities to Hassall & Associates who were also associated with Agrisystems (Overseas) Ltd and Kagga and Partners (Uganda). The building and civil works were further sub-contracted by Hassall & Associates to Wade Adams. The Final Report preceeding reception of this work was undertaken, on behalf of UNIDO, by Seka Associates, Kampala.

The expected outputs of the two projects differ slightly in their respective Project Documents. However, as explained in the main body of the report, the mission supports the interpretation currently used by the UNIDO sub-contractor which is as follows:

- To regenerate SAIMMCO Ltd and the company's capacity to manufacture agricultural machinery, implements and spares, and to develop an engineering service capacity to cover regional demand for agro-industrial repair and maintenance facilities.

- To establish improved capabilities in design, manufacturing, repair, maintenance and quality control.

- To establish a framework for the coordination of improved and integrated development of agricultural machinery, implements and spare parts.

- To establish a marketing mechanism which is properly linked back to the manufacturing programme of the workshop.

IV. Purpose of the Evaluation

The mission was to assess and evaluate the design, implementation and post-project stages of the project. This would then enable an assessment of the project's impact on the livelihoods of end users of the implements as well as on the plant workers and their households, an assessment of plans for privatization of the facility together with an evaluation of the overall approach and performance of the project.

V. Findings of the Evaluation Mission

A. Summary of the results achieved

The Mission found that the project had overall, successfully attained the major part of the outputs which had been specified in the Project Agreements. In particular:

a) SAIMMCO (U) Ltd was incorporated under the Uganda Companies Act on 6 February 1990.
b) The SAIMMCO factory building was reconstructed although final hand-over in February 1995 was 10 months behind schedule.
c) An appropriate range of machine tools and equipment was judiciously selected or rehabilitated, installed, tested and put into operation by July 1995.
d) Raw materials to a total value of US$ 326,340 have been purchased either locally or imported, using investment funds provided by UNCDF.
e) The first full year of production and service work generated an income of USh 83.6 million as from July 1995 to June 1996. This fell short of the projected performance of USh 202 million estimated by the UNCDF review mission in 1994.
f) SAIMMCO have trained staff in designing, modifying and developing equipment and the product range has been considerably improved through imaginative development and production techniques.
g) The implementation contractor will have supplied some 95 m/m of long term specialists and 6 m/m of short term consultants by the project termination date of January 1997.
h) Intensive on-the-job training has been given by the project specialists although due to the delayed hand-over of the building, this training period will only reach 21 months at project termination as compared to the 36 months agreed in the PRODOCs.
i) A marketing strategy has been adopted by SAIMMCO, although this requires further measures to be taken concerning its implementation.
j) A functional administrative system has been established at SAIMMCO.
k) Some progress has been achieved with the privatisation process but several important issues still remain to be resolved.

B. Assessment of specific aspects of project results

a) The 10 month delay in hand-over of the reconstructed workshop means that only 21 months of technical assistance will be provided on the shop floor, rather than the 36 months foreseen in the PRODOCs.

b) The Mission noted the generally satisfactory performance of the project partners but thought project viability should have been more carefully analysed before implementation commenced. It also felt that GoU participation could have been improved.

c) Building costs were over-budget whilst equipment costs were low through careful project implementation by the sub-contractor. Investments in raw materials were also under-budget.

d) The Mission noted various imprecisions in the PRODOCs and also that the potential role to be played by the rural artisans (blacksmiths, etc.) was completely ignored.

e) The SAIMMCO product range is robust, of high quality and well appreciated by the end users. Some of the animal drawn equipment is thought to be too heavy.

f) The Mission noted low sales levels to individual farmers and felt that future demand would be strongly influenced by the requirements of aid organisations.

g) It was felt that a more aggressive marketing approach was required for the SAIMMCO product range and services, particularly towards aid organisations and the agro-processing industry.

h) The Mission noted the satisfactory organisation and management of plant activities as demonstrated by the high quality of work undertaken.

i) The Mission felt that the SAIMMCO staff should be further encouraged to develop their own representational structure.

j) The project was judged to have had a positive impact on the plant employees and their families but is was too early to note more than a very limited impact on land use and farmer livelihood. Impact in Soroti town was judged to have been more social than economic. Project impact on rural women and children was still limited but positive.

C. Assessment of the project design

The Mission found the following short-comings in the project design:

a) The projected performance of SAIMMCO was over-optimistic and failed to present alternative scenarios. This later lead to serious doubts concerning project viability and even caused a temporary stoppage of investment funding.

b) No consideration was made at either the design or implementation stages concerning the possible needs of the rural artisans in the project area.

c) There was a clear conflict of interest between the overall and implied objective to alleviate poverty by re-establishing the workshop in Soroti and the eventual decision to fully privatise the plant which would imply strictly economic objectives. This matter remains to be conveniently resolved.

d) The project design was vary confusing in considering the original "grant" by UNCDF to the GoU as a "loan by the GoU to SAIMMCO. In the light of present privatisation plans, the "loan" concept is no longer relevant and measures should merely be taken to ensure that the proceeds from eventual privatisation are reinvested in development projects within the country and with due consultation with the original investment donors, UNDP and UNCDF.

VI. Recommendations

Two main groups of recommendations are presented:

a) Concerning the consolidation of SAIMMCO as a profitable concern and the build-up to eventual privatisation:

i) That the 36 months of technical assistance on the shop floor agreed in the PRODOCs be ensured by maintaining the present General Manager in post until April 1988.
ii) That this (and perhaps further) technical assistance could be conveniently arranged through a Management Contract and possibly funded by an interested donor.
iii) That the privatisation process be postponed until termination of the Management Contract.
iv) That the privatisation procedure for SAIMMCO should be studied as a "special case" so as to ensure the socio-economic aspects receive due consideration.

b) Concerning SAIMMCO marketing activities:

i) That a more aggressive approach is required with improved links to Government extension services, particularly those of the MAAIF.
ii) That reinforced links should be established with the national distributor selected by SAIMMCO (MAGRIC).
iii) That continued reinforcement of links be made with the agro-processing industry.
iv) That a follow-up mission be programmed for the Marketing Consultant.

VII. Policy Implications and Lessons Learnt

Concerning privatisation and poverty alleviation:

The Mission notes the conflict of interest when both these objectives are tried to be attained simultaneously unless careful project design foresees such an eventuality. Unfortunately in the particular case of this project, full privatisation only became an issue after signing the Project Agreements and at an early stage of project implementation. Future combination of these same objectives should be carefully planned from the stage of initial project planning.

Concerning the socio-economic impact as related to privatisation of a supply resource:

Again in the particular case of SAIMMCO, the risk of losing all socio-economic benefits attributed to the project is still high precisely because full privatisation was not (indeed could not have been) considered during the project formulation stage. Due to this situation, remedial measures have been suggested by the Mission as indicated in Recommendation a (iv) above.

Concerning privatisation and decentralisation:

The Mission fully supports maintaining the workshop facility in the decentralised location of Soroti. However it notes that the privatisation process so far, does not exclude the possibility that the location of the workshop be changed.

Concerning specific lessons learnt:

The Mission observed that during project formulation stages, projected performance tables, economic calculations and the basic logic behind project proposals should be subject to much closer scrutiny before implementation takes place.

Concerning participatory planning:

The Mission had few comments to place under this title but suggested that

i) the SAIMMCO staff be more actively encouraged to develop their own representational structure.
ii) that during formulation and review missions, additional time be spent by staff concerned to undertake fuller and more participatory discussions during their missions and that this might assist in widening the breadth of projected performance levels, such as illustrated by the single scenario included in the PRODOCs concerning the present project.

VIII. Evaluation Team

The Evaluation mission team commissioned by UNCDF was made up of Dr John E. Ashburner, Team Leader and Agro-Engineer, Mr Peter Mallow, Industries Analyst and Mr Wilfred R. Odogola, Agro-Economist/Technologist. The team was accompanied throughout the programme of field visits by Mr Henry Mbaguta, Senior Economist, Ministry of Finance and Mr Frank Akena, Senior Agricultural Officer, Ministry of Agriculture, Animal Industry and Fisheries.

PART A

INFORMATION NECESSARY FOR PROJECT EVALUATION

PART A
INFORMATION NECESSARY FOR EVALUATION OF THE PROJECT

1 PRESENTATION OF THE PROJECT AS ORIGINALLY DESIGNED

1.1 The country, regional situation and the sector

Agriculture is the main stay of Uganda's economy, contributing 50-60 % of GDP and providing over 80 % of the employment opportunities in the country. Production currently comes from an estimated 2.5 million smallholder farm households, 80 % of which have, on average, less than 3 hectares each. In the Central and South-Western region of the country, population densities are very high and land holdings range between 0.01 - 2 hectares per household, while in the Eastern and Northern regions the figures are respectively 4-6 and over 7 hectares per household.

Land tillage throughout the country mainly relies on handtool technology, principally the hand-hoe, axe, matchet and sickle. These are owned and exclusively used by over 85% of the farm households and are indeed, the main reason for the low levels of cropped land in Uganda, i.e only 4.6 million out of the 17 million hectares classified as arable land in the country. Tractor use contributes less than 0.01% of the means of mechanisation in the country, previous attempts to introduce important numbers of tractors having been generally unsuccessful.

Animal draft power was introduced as long ago as 1909 in Kumi District to the East of the country. Due to the conducive conditions of light soils with flat topography, including possession of adequate numbers of suitable draft animals, this technology spread spontaneously to the neighbouring districts to the North as well as to the East and South of Kumi. It soon caused rapid increase in the land area under crops and brought about a significant improvement to the life of the local population, especially through proceeds from cotton, a crop closely associated with the introduction of animal draft technology in the area. It was therefore not by accident that in the 1980's, the GoU requested assistance for reconstructing and equipping an already existing factory in Soroti for the manufacture of animal drawn implements in this area of the country.

The project document identified the immediate beneficiaries as the 15 districts in the Eastern and Northern region of the country with a population of 3,580,000 in 1980. In this area, production has been characterised by small holder mixed farming systems. The integration of crops and livestock assured a high degree of farm level self-sufficiency with subsistence provided

from food crops, milk and meat and cash generated from the sales of cash crops mainly cotton and simsim (sesame) and from livestock and their products. The mixed farming system was managed so as to maintain soil fertility through simple crop rotation practices as well as through the incorporation of manure from the cattle.

This area has relied heavily upon the use of animal draft power as an integral part of the farming system for over 70 years. Unfortunately, this situation was radically altered in 1987 when most of the livestock was lost during a period of civil strife which resulted in massive cattle rustling and unsystematic slaughter. In the Districts of Kumi, Soroti, Lira and Gulu alone, the total cattle population dropped from an estimated 800,000 head in 1986 to only 56,000 in 1992 (for full details of these statistics, see **Appendix 14**).

1.2 Background to formulation and implementation of the project

The programme to rehabilitate and equip the Soroti Agricultural Implements and Machinery Manufacturing Company (SAIMMCO LTD) commenced activities in February 1993, utilising funds provided through UNCDF, UNDP and the GoU. Two separate Project Documents cover the agreements between the GoU and UNCDF (Project No UGA/80/C06) and the GoU and UNDP (Project No UGA/86/015). Project implementation is entrusted to UNIDO who have sub-contracted field implementation to Hassall and Associates Pty. Ltd through a turnkey contract (No 92/185).

The factory in Soroti, formally known as A.H. Engineering Works Ltd, was originally established under private ownership in 1967 for the manufacture of farm implements (ox-ploughs, ox-carts, maize mills), spare parts for ginneries and general engineering services. The plant was designed for production of 6,000 ox-ploughs but this target was never reached. In 1972, the business and premises were nationalised and the plant taken over by the Teso Cooperative Union.

In 1976, the factory, by then known as Engineering Department of Teso Cooperative Union, became the Low Cost Farm Equipment Project under the direct control of the Ministry of Agriculture. It continued with the manufacture and repairs of animal-drawn and other equipment. The diversified product range then included concrete block-making machines and custom built steel plated water tanks. Hand tools were manufactured occasionally in small batches, including hand hoes, pangas and rakes of local design. Between 1979 and 1989, production and service activities of the factory declined drastically during a period of civil unrest throughout the region, coupled with a general lack of foreign exchange for importing materials and components and sparse government funding for the plant.

A number of international Missions visited Uganda between 1980 and 1990 in connection with possible assistance to the plant. These included:

* A UNIDO rehabilitation and programming mission in January/February 1980 which discussed possibilities for rehabilitation of the plant;

* A UNCDF mission undertaken by the contractor Sores Inc. which, in 1981, studied the GoU request for financial support to rehabilitate the plant. The mission recommended

that the project should concentrate on factory rehabilitation and manufacture of existing designs of implements rather than on the development of new product designs.

* A UNCDF mission undertaken by the contractor Polytechna/Inpro in 1985

In 1990, the "Low Cost" Project became a registered company and its name changed to SAIMMCO (U) LTD. The shares in the company are held by the Ministry of Finance (one share) and the Ministry of Agriculture Animal Industry and Fisheries (one share). Future ownership of SAIMMCO is eventually to be privatised once the company becomes a profitable enterprise.

The main justification for the project as described in the project document of 1987, is that one of the key impediments to accelerated agricultural development in Uganda has been the lack of appropriate farm inputs and particularly of implements which allow reduction of drudgery and an increase to the productivity of farm labour. With this in view, the project was oriented mainly towards producing farm implements. Flexibility was also built into the project design so as to enable the provision of engineering services to the local urban and rural populations. Hence, universal workshop machinery and tools were selected for the new project.

The agreements were signed in August 1987. With some elements of insurgency still existing in the area, the pick-up momentum of the project proved fairly slow. At the same time, UNCDF expressed concern about the project's projected performance and commercial viability.

In June 1991, a UNCDF Technical Review Mission was undertaken by Roger Shotton. The planned production programme was down-scaled by some 50 % and investment costs reduced in consequence. It was suggested that in consideration of the projected debt repayment capacity of SAIMMCO, the maximum value of the loan to the company should probably not exceed US$ 1 to 1.5 million at the most.

The differences between factory production as proposed in the PRODOC's and that proposed by Roger Shotton (which were incorporated into the terms of reference of the UNIDO sub-contractor, Hassall Associates) are illustrated in **Tables 1** and 2 below.

Although project implementation commenced in February 1993, further studies were undertaken relating to the project's viability and investment funding was temporarily halted in November 1993. A further review mission was undertaken in March 1994 (Bearez and Odeke, 1994).

The Bearez and Odeke Mission made wide-ranging consultations in the project area, talking to opinion leaders, extension agents, farmers as well as to a number of NGO's who had by then fully resumed work in the area. Cattle restocking efforts to replace some of the estimated 1.2 million heads of cattle lost during years of insurgency in north and north-eastern Uganda, was taking root both by government, church organisations, NGO's and more importantly by farmers themselves. The Smallholder Cotton Rehabilitation Project (SCRP), funded by the World Bank had also started. Agricultural production, which had hit a low of 10-15% of the pre-1987 levels, had indeed picked-up and was steadily on an upward trend.

The Bearez and Odeke report was positive on the future prospects and commercial viability of the factory. Consequently, following the Mission's report, project funding was renewed in April 1994. It is planned for termination on 31 January 1997.

TABLE 1: Planned Production Programme (Project Agreements, 1987)

Product	Year and level of implementation		
	2nd yr (40%)	3rd yr (60%)	4th yr (100%)
Ox ploughs	4,000	6,000	8,000
Ox-plough shares	12,000	18,000	24,000
Ox drawn expanding cultivators	-	-	300
Sowing implements	-	-	300
Groundnuts lifters	-	-	200
Ox carts (steel and rubber wheeled)	200	300	500
Hammer mills (diesel engine, 10-30 hp)	30	50	70
Hammer mills (electric motor, 10-30 hp)	20	30	50
Production of spare parts Repair of worn parts Repairs to industry	25% of capacity in value terms		

TABLE 2: Planned Production Programme (TOR of UNIDO contractor, 1993)

Product	Year and level of implementation		
	2nd yr (40%)	3rd yr (60%)	4th yr (100%)
Ox ploughs	1,600	2,400	4,000
Ox-plough shares	4,800	7,200	12,000
Ox carts (steel wheeled)	100	150	250
Ox carts (rubber wheeled)	100	150	250
Hammer mills (various power ranges)	20	30	50
Production of spare parts Repair of worn parts Repairs to industry	25% of capacity in value terms		

1.3 The overall project concept

The UNCDF project UGA/80/CO6 was designed to provide funds to rehabilitate and equip the factory/workshop in Soroti so as to enable it to expand its manufacturing capacity, enhance its management/manufacturing/service capabilities and market its products.

The UNDP project UGA/86/015 was designed with the same objectives as outlined in the previous paragraph but the funds were to be allocated for the technical assistance inputs, together with supplementary costs necessary for successful implementation of the project. These included items such as mission costs, study tours, transport equipment, expendable equipment, etc.

The UNCDF agreement committed investment funds in the form of a grant for reconstruction of the workshop and to supply machine tools and raw materials. These funds would be treated as a loan to SAIMMCO, reimbursable over a 16 year period to a special account to be opened at the Uganda Commercial Bank. This debt repayment would then be used by the GoU to finance further development projects, subject to approval by UNCDF.

1.4 Project development objectives

The long-term objectives of the Government in the Agricultural sector, as stated in the UNCDF project document of 1987 are:

1. To increase agricultural output and productivity;
2. To encourage structural adjustment;
3. To save foreign exchange.

The UNDP project document indicates the following development objectives will be addressed:

1. Increased agricultural productivity of farmers and agro-based industries;
2. Creation of an indigenous capability in the designing and manufacturing of agricultural implements and machinery.

1.5 Project immediate objectives

In pursuance of the above development objectives, a number of immediate objectives of the project were defined. Whilst the wording differs in the two PRODOCs concerned, that stated in the UNCDF project document adequately covers the intended objectives indicated by the two agencies. These are as follows:

1. To expand the manufacturing capacity of the Soroti Agricultural Implements workshop for the manufacture of agricultural machinery, implements and critical spare parts.

2. To establish improved capabilities in production management, repair, maintenance, quality control and design adaptation.

3. The establishment of a framework for the coordination of improved and integrated development of agricultural machinery, implements and spare parts.

4. To establish a marketing mechanism including proper feedback into the production programme of the workshop.

1.6 The project inputs

Following is the schedule of inputs from the parties concerned with the project and as stated in the UNCDF and UNDP PRODOCs.

1.6.1 Government Inputs

The Government of Uganda was to provide personnel and facilities within the frame work of the Soroti factory.

a. The assignation of 8 national staff for project execution totalling an input of 282 work months.

b. The existing workshop of the Soroti factory plus additional area for further expansion.

c. An initial budget, totalling US$ 585,000, for the maintenance and repair of existing machinery and equipment for the Soroti plant until the enterprise becomes able to cover these costs from the sale of products.

This budget was to be composed of the following elements:

Working capital	US$	472,000
Transfer of existing assets	US$	73,000
Preoperative expenses	US$	40,000
Total	**US$**	**585,000**

1.6.2 UNDP Inputs

The UNDP inputs covered overall technical assistance funds for project supervision together with a Sub-contract A to cover the technical assistance for project implementation. These arrangements are summarised below.

Project support:

a. A **Chief Technical Advisor** (15 work months). To serve throughout the project duration of five years (3 one month visits per year).

b. An **Administrative Liaison Officer,** (36 work months). To be based in Soroti.

c. **Consultant** - Civil Engineer (3 months) for monitoring and certifying construction work carried out by sub-contractor. To be based in Soroti.

d. Provision of the support costs for administrative staff, in-country travel, international study tours, non-expendable equipment (including one vehicle) and expendable equipment (including sample agricultural machinery).

e. Miscellaneous: operations and maintenance items, books, publications and sundry items.

Sub-total for project support: **US$ 554,000**

Sub-contract A:

a. Consultancies for project implementation. A total of 11 long or short term posts were envisaged.

b. Travel costs of consultants within Uganda.

c. Training of national staff and technicians to include international fellowships and on-the-job training.

Sub-total for Sub-contract A: **US$ 982,000**

Grand total for UNDP inputs **US$ 1,536,000**

1.6.3 UNCDF Inputs

The financial commitment of UNCDF amounted to a maximum of US$ 2,415,000. This was made up as follows:

Sub-contracts (for construction, raw materials & equipment)	US$	1,969,000
Un-allocated funds (for use only with approval from UNCDF)	US$	204,000
Missions costs (UNCDF formulation/implementation/eval.)	US$	67,000
Agency support cost (overheads on procurement/support)	US$	175,000
Total for UNCDF inputs (maximum)	**US$**	**2,415,000**

1.7 Implementation arrangements

The UNDP/UNCDF project documents indicated that project implementation was to be carried out by an internationally-renowned firm under contract to UNIDO and financed by funds from UNCDF and UNDP. The contracting firm (the "operations contractor") was to be responsible for all aspects of technical assistance, management and organization of the project including construction, equipment selection, procurement and delivery as well as provision of raw materials. This constituted Contract A.

Civil works were also to be sub-contracted out (Contract B), supervised by the "operations contractor" and monitored by UNDP/UNIDO. Construction included the workshop and pre-fabricated housing for the international staff.

Implementation of activities was to proceed in three phases as follows:

PHASE I: Preparatory Phase

This phase was planned for the first six months following signature of the project document. During this phase UNIDO was to be the principal initiator of activities including preparation of tender documents, short listing of prospective consulting firms, tendering, opening and evaluation of bids and signing contracts with successful bidders for Contract A. This phase was to end with the incorporation of the workshop as a parastatal.

PHASE II: Construction phase

During this 12 month phase, the operations contractor was to be the main actor, preparing detailed architectural plans for reconstruction of the workshop and arranging for a local construction firm to undertake the civil works (Contract B). The operations contractor would also prepare specifications for the equipment required, order, receive and install the equipment, identify suppliers of raw materials and arrange for delivery of materials in accordance with the expected production schedule.

During the construction phase, the operations contractor was also to prepare detailed plans for management, accounting and operations of the workshop. In addition, the contractor was to assist the workshop management during this phase to continue the production programme with a view to ensuring successful accomplishment of all contracted and pipe-line production.

PHASE III: Production phase

This phase of 48 months would allow the operations contractor to operate under a management services contract under the SAIMMCO Board of Directors, the company by then having been incorporated under Uganda law as an autonomous company.

Duties of the operations contractor would include general workshop management and training, undertaking design improvements and introduction of new production items in line with market demand, and generally initiate all actions required to bring the production schedule to full capacity with fully competent and trained local staff capable of continuing operations at the end of the contractor's mandate.

1.8 Project activities and expected outputs

1.8.1 Activities

The UNDP PRODOC lists a total of fourteen activities to be accomplished during the life of the project. These activities have also been covered, but in lesser detail, in the UNCDF

PRODOC. They may best be summarised by referring to the aims of the sub-contract eventually established between UNIDO and Hassle Associates which are as follows:

a) Construct and rehabilitate the SAIMMCO factory;

b) Supply, test, commission and put into operation the machinery and equipment required for the Plant;

c) Supply raw materials and other materials for a 1 year full production of agricultural tools, implements and farm machinery,

d) Supply specialists for the operation and improved production capacity of the Plant;

e) Provide and organize training in Plant operation both at the Plant Site and abroad;

f) Undertake marketing, planning, administrative and other technical assistance responsibilities;

g) Manage the Plant for a period of 3 years after the initial period of 1 year.

1.8.2 Expected outputs

These activities were designed to produce outputs as described in the two PRODOCs. They are summarised in the 7th Progress Report of the UNIDO sub-contractor as follows:

1) An established institutional framework in the form of a company operating as a fully autonomous organisation incorporated under the Uganda Companies Act. SAIMMCO will be a company limited by shares.

2) A completely renovated farm-implements factory at Soroti, including the construction of factory premises and the procurement, installation and commissioning of equipment, and the procurement of raw materials.

3) The production system for the first year of operation is aimed at manufacturing ox-ploughs, shares, ox-carts and hammer mills. Furthermore, 25% of the total capacity in value terms will be used for repair of machine components as well as the production of spare parts. The production lay-out will be designed to allow a flexible response to changing circumstances in the market.

4) Research, testing and development facilities will be available at SAIMMCO Ltd for use with existing and new products and repair activities, and for the provision of technical assistance to the extension services.

5) A testing station established at the Soroti region, under a separate project but in corporation with SAIMMCO Ltd, in order to test imported as well as locally

manufactured implements and to introduce a product certification system based on quality standards.

6) Establishment of a commercial department of SAIMMCO Ltd whose policy will be in line with the development strategy of the Uganda Government. In the marketing policy optimum use will be made of existing distribution channels. Attention shall be paid to the development of an international market programme for SAIMMCO products.

7) Establishment of an appropriate administrative system, including accounting, financial and stock control systems.

8) SAIMMCO staff trained in manufacturing, management, production design, production technology and operations, sales and marketing, administration and finance.

1.9 Implementation responsibilities

In order to ensure successful implementation of project activities, the following actions were to be undertaken by the parties concerned:

1.9.1 Government responsibilities

1. Initiate action for incorporation of the workshop as a fully autonomous business entity under the Companies Act.

2. Appoint a Project Coordinating Committee to function as an interim Board of Directors of the Project until the workshop is fully incorporated and until a permanent Board of Directors is appointed.

3. Assist the workshop to open a special project account with the Uganda Commercial Bank, Soroti to be operated jointly by the Chief Technical Consultant and the National Project Manager.

4. Continue to pay all salaries and wages of the employees of the workshop during an initial period of six months and until incorporation of the workshop.

5. Contract a consulting company financed from the UNCDF/UNDP grants, to be vested with sufficient power and responsibility for daily operations of the workshop.

6. Establish an agreement with the Uganda Commercial Bank (UCB) to open and manage a special Loan Account for the workshop, ensuring that no disbursements would be made without prior consultation and agreement from UNCDF and that a reasonable rate of interest be payable on the outstanding debt.

7. Review the draft tender documents prepared for Contracts A and B by UNIDO. Review the short list of firms and provide comments to UNDP, UNIDO and UNCDF. Participate in the evaluation of the bids.

8. Provide appropriate land in the town of Soroti for the construction of the pre-fabricated houses, together with adequate land for the extension of the factory building, immediately to the rear of the existing building.

9. Facilitate duty free importation of all materials, equipment, vehicles, tools and other items procured with project funds. Also facilitate the issuance of visas to the international personnel of the contractor.

10. Upon incorporation of the workshop, arrange to purchase 5850 shares in the corporation at the USh equivalent of US $100 per share; 5120 shares would be issued for cash and 730 shares for consideration other than cash (against existing assets).

1.9.2 UNCDF responsibilities

1. The financial commitment of UNCDF to the project amounts to a maximum of US$ 2,415,000 which would cover the costs of only those project inputs specified in the Agreement. Disbursements authorizations would commence following the receipt, review and approval of a detailed Work Plan.

2. Review the draft tender documents prepared by UNIDO for Contract A, consult with Government, UNDP and UNIDO concerning the final short list and participate in the opening and evaluation of bids.

1.9.3 UNDP responsibilities

1. The Resident Representative of UNDP in Uganda is the authorized representative of UNCDF in the country. He was to closely follow the progress of the project and promptly provide all possible assistance to the Government and to the project to ensure its timely and successful completion.

2. Review the draft tender documents prepared by UNIDO for Contract A, consult with Government, UNCDF and UNIDO concerning the final short list and participate in the opening and evaluation of bids.

1.9.4 UNIDO responsibilities

1. Assume responsibility for the disbursement of funds allocated to budget line 21.01 of the UNCDF project budget and its subsequent revisions.

2. Provide UNCDF, with copies to the Government and UNDP, the reports indicated in the applicable section of the Project Agreement.

3. Assume responsibility for preparing the draft tender documents for Contract A and for clearing these documents with Government, UNDP and UNCDF. Subsequently, prepare a short-list of firms to undertake Contract A and make arrangements for the bid opening and evaluation process.

4. Identify qualified candidates for the post of Chief Technical Advisor.

5. Ensure that all invoices presented by the contractor are certified by both the Government and the UNIDO Chief Technical Adviser prior to payment.

6. Field the project administrative officer and the local support personnel in a timely manner.

7. Ensure that the contractor provides to all parties concerned and especially to the Government and the Uganda Commercial Bank (UCB), the actual costs of all construction, raw materials and equipment delivered and installed at the project site in order that Government and the UCB are able to establish and manage the special loan account for the workshop.

1.10 Project monitoring and evaluation

Both the UNCDF as well as the UNDP project documents provide details on procedures for monitoring project activities and performance. These are summarised below.

1. Inception report:

To contain a detailed and definitive work plan for implementation of the project.

2. Progress reports

Regular progress reports were to be prepared at 6 monthly intervals.

3. Audited financial report:

To contain three sections related to i) funding provided by UNCDF, ii) operations of the workshop and iii) certified accounts statements concerning the Loan account at the UCB.

4. Equipment inventory:

To be prepared annually and contain lists of all equipment acquired with UNCDF funds.

5. Final report:

To review the life of the project, the objectives and the degree to which these were attained.

6. Tripartite monitoring and evaluation:

Monitoring of the project activities were to be carried out through review missions fielded for the purpose as well as through regular meetings and discussions between all parties concerned (GoU, UNDP, UNCDF and UNIDO).

Both a mid-term and final evaluation of the project were envisaged.

1.11 Risks identified at the design and appraisal stages

Neither the UNDP nor the UNCDF Project Agreements specify risks envisaged during project implementation. However, the Evaluation Mission considers the undermentioned risks were relevant to successful project implementation in 1987 and later.

1. The Project was signed in August 1987 when the insurgency was just starting in Eastern and Northern parts of the country. This might constrain timely initiation of the project.

2. The loss of livestock through cattle rustling and political strife could reduce the demand for animal drawn equipment for which the factory was intended.

3. The low financial earnings of people in the area could lower the ability of SAIMMCO to market its products effectively.

4. Employees of the factory are civil servants who are paid according to a government wage scale, significantly lower than the private sector: this may inhibit worker productivity levels or cause labour dissatisfaction.

5. By the time SAIMMCO initiated its operations in 1987, the country had large stocks of heavily subsidised animal drawn equipment which had come into the country through the Agricultural Development Programme under the MAAIF. These stocks which still available in the early 1990's, could significantly reduce demand for SAIMMCO equipment.

2 PROJECT IMPLEMENTATION RESULTS

2.1 Introduction

A review has already been presented above concerning the proposed project activities and expected outputs (**Section 1.8**). The TORs of the contractor further clarify these matters as indicated under i) the Synopsis of the aims of the Contract and ii) The Project Outputs (see UNIDO, 1993). A suitable combination and rationalization of these two lists have been adopted in the contractor's Progress Reports in order to present their results and a similar approach is used below in order to summarize the facts concerning implementation results.

2.2 Establishment of SAIMMCO as a company limited by shares

This was achieved by the GoU on 6 February 1990 when SAIMMCO was incorporated under the Uganda Companies Act, one share being held by the Ministry of Agriculture, Animal Industry and Fisheries and one share by the Ministry of Finance and Economic Planning.

2.3 Construction of factory premises

The detailed survey and design work for the civil works and preparation of the tender documents took place during the first few months of project implementation. The three tenders offered were opened on 18 June, an assessment carried out and UNIDO approval received to proceed.

Construction of the factory premises commenced after the site had been handed over to the civil works sub-contractor (Wade Adams) on 10 September 1993 and the work was substantially completed in January 1995. The hand-over of the reconstructed premises to Hassall & Associates took place in February 1995.

2.4 Procurement, installation and commissioning of equipment

The procurement process was commenced during 1993 but suspended until May 1994. The first container arrived on 10 January 1995 and the last on 20 May 1995. Thus most equipment was received in time for installation as soon as the reconstructed premises had been handed back to the implementation contractor and commissioning was largely completed by the time the 5th Progress Report had been submitted on 31 July 1995. Ironically, the last item of equipment to be received was the forklift truck.

2.5 Procurement of raw materials

Raw materials, components and spare parts to a total value of US$ 376,099 or USh 359 million had been acquired by SAIMMCO at the close of accounts on 30 June 1996. Additional local purchases and importations will continue to be arranged as future needs are identified. Present raw material stocks include some 5,000 old plough beams purchased from local farmers which will be reconditioned and re-used for ploughs produced by the factory.

2.6 Production and service work

In the first full financial year of plant production (1 July 1995 to 30 June 1996), total factory income amounted to USh 83.6 million made up as follows:

Product sales excluding ploughs	5.4 million
Sale of ploughs	19.3 million
Sale of spares	6.9 million
Sale of raw materials	0.1 million
Service work undertaken	22:1 million
TOTAL	**83.6 million**

In order to compare with targets suggested in the project design (see **Section 1.2**), production over the one year period from 1 August 1995 to 31 July 1996 included the following items (see the 6th and 7th Progress Reports):

Ploughs	467
Ox-carts	14
Hammer mills	11

2.7 Development of capacity for product design, testing and development

The designs of several products have been developed and the techniques imparted to SAIMMCO staff by on-the-job training (the plough, hammer mill, RHS toolbar, dam scoop, ox cart, shea butter press, etc.) A similar approach has been used when undertaking light engineering service work.

Equipment has been tested either in the factory, on farms and occasionally in conjunction with the Serere Agricultural and Animal Research Institute (SAARI).

A full set of scaled drawings is being produced for all product components by the Research and Development Engineer, using the Autosketch computer programme.

2.8 Supply of specialists for the operation and improved production of the plant

At the time of the Evaluation, the contractor had supplied or engaged to supply a total of some 95 man months (m/m) of long term specialists and about 6 m/m of short term specialists, calculated with effect up to 31 January 1997. The positions held and list of personnel concerned is detailed in **Appendix 5**.

2.9 Provision of training in plant operation

The provision of training has continued throughout the operational phase of establishing factory operations and has been accomplished through on-the-job training of workers at different levels. Most of the training of senior engineering staff has been through the establishment of close working relationships with the technical assistants during collaborative work in the production and quality control processes. On-the-job training is undertaken both by project staff as well as by local workshop staff, competent in a particular machine or process.

Regarding training outside the factory, four staff members have now been selected for short-term, specialist in-country training courses. Topics to be covered will be Fitting, Machining, Blacksmithing or Welding, each participant to undertake one of these courses.

2.10 Establishment of a marketing mechanism for SAIMMCO

A marketing strategy was proposed by the marketing consultant in April 1996. This was designed to suggest a range of marketing activities which could enable SAIMMCO to reach a wider potential customer base.

One of the major outcomes has been the arrangement agreed with MAGRIC (U) Ltd. Kampala who have become the main outlet for SAIMMCO products through MAGRIC's good relations with a number of aid-agencies and NGO's involved in agricultural development projects at national level.

2.11 Establishment of an administrative system

The basic financial administration and stock control systems were developed during earlier stages of the project implementation and these have been continually refined according to needs.

As the company accountant resigned in March 1996, SAIMMCO experienced some difficulties in being able to prepare the financial accounts for the operational and financial year 1995-96. Presently, the accountant has not been replaced due to lack of qualified personnel in the area and records are maintained by a bookkeeper.

The SAIMMCO financial statements for 1995-96 were prepared by the short-term financial consultant and are reproduced in the 7th Progress Report.

2.12 Progress achieved with privatization arrangements

During the Tripartite Review Meeting on 5 October 1994, it was agreed by the parties concerned that a privatisation strategy should be prepared for SAIMMCO.

The privatisation issues are still at a preliminary stage and the Privatisation Unit under the Ministry of Finance is preparing to initiate the steps which need to be taken.

The issue of land ownership is presently being resolved by the District Land Committee in Soroti.

The workshop staff have not yet received their letters of appointment from the Ministry of Agriculture, Animal Industries and Fisheries. MAAIF has also still to issue the Terms and Conditions of Employment for the staff.

These unsolved issues could lead to further delay to the process of privatisation.

PART B

PROJECT EVALUATION

PART B
PROJECT EVALUATION

1 PROJECT IMPLEMENTATION PERFORMANCE

1.1 OVERALL PROJECT IMPLEMENTATION PERFORMANCE

1.1.1 Delivery of inputs specified in the project document

External project inputs specified in the PRODOCs originated from two sources. Firstly, UNCDF provided funds destined for the reconstruction and equipment of the workshop, transport equipment and the construction of three prefabricated houses for the international staff. Secondly, UNDP provided funds for technical assistance, administrative support staff, travel on official mission, mission costs, training and a certain amount of both non-expendable and expendable equipment. Delivery of these inputs was channelled through UNIDO as executing agency who in turn, sub-contracted field execution to Hassall & Associates on the basis of a standard international tendering procedure.

A project vehicle was procured directly by UNCDF well before project activities commenced which, although providing timely transport when finally needed, meant that the vehicle already had some 100,000 km of use and required extensive overhaul at project start-up.

Project funding appears to have been smoothly arranged during initial activities and indeed the sub-contractor working on behalf of UNIDO, initiated work in February 1993 despite their contract not being finally signed until July by Hassall & Associates and in August 1993 by UNIDO. It is felt that this emphasises the dedication to the task shown by the sub-contractor and implies encouraging support from the executing agency.

The first surprise occurred in June 1993 when the former owner of A.H. Engineering reappeared and presented a repossession certificate for the site which had been issued by the Departed Asian Property Custodian Board. As confirmed national ownership of the site had been one of the preconditions for project approval, UNCDF funding for the construction and rehabilitation phase of activities was frozen in September 1993 until the matter was legally settled by the GoU almost immediately afterwards. The precise timing of this rapid turn of events may be summarised as follows:

10 September 1993	Factory site handed over to Wade Adams, the civil works sub-contractor
20 September 1993	UNIDO agree to Hassall proposal (of 17 September) to halt construction activities
24 September 1993	GoU confirm settlement of their ownership of the site

Misgivings concerning projected plant performance had already been expressed in the July 1991 report by Roger Shotton (*important reference documents are listed in* **Appendix 4** *and henceforth will only be referred by author and date*). This matter was further studied and commented upon during the site visit by the UNIDO back-stopping officer in November 1992 (see Belo, 1992). The Project Inception team fielded by the implementation sub-contractor (Hassall & Associates) in March 1993 also suggested a reduction in projected plant output as originally indicated in the PRODOCs, together with a corresponding reduction in the production equipment which should be procured.

UNCDF continued to be deeply concerned regarding viability of the project and despite settlement of the site ownership question described above, decided to continue the freeze of investment funding until the matter could be further clarified. The civil works contractor (Wade Adams) was accordingly instructed to halt all activity as from 1 November 1993.

The project team spent considerable time in early 1994, supplying information to UNCDF which was required for additional financial analysis of the commercial viability of SAIMMCO and which directly concerned their contractually agreed investment in the project. UNCDF followed up these studies by fielding a specialist mission in March 1994 to further review the project's potential viability and its support value to the agricultural industry (see Baerez and Odeke, 1994). The positive proposals contained in this report led UNCDF to unfreeze the investment funds and civil works eventually recommenced on 3 May 1994. The total stoppage period had then been 6 months.

The Evaluation Mission considers that this halt in civil works and equipment procurement has had an important effect on project results:

- ***An additional cost of some US$ 100,000 to the civil works (with a corresponding increase to the UNCDF grant/loan)***
- ***A loss of revenue of some US$ 35,000 to SAIMMCO (which has now been repaid as compensation to the company through a corresponding increase to the UNCDF budget)***
- ***A delay in the build-up to full workshop production of 6 months with a corresponding reduction to the duration of technical assistance to be supplied during the production phase.***

On the positive side, the extended curtailment of production activities provided project management with the time and opportunity to upgrade the company's administrative procedures and systems and to rationalize a situation considered as over-staffing (see Hassall, 3rd Progress Report, July 1994, p.2).

After activities were fully re-initiated in May 1994, the inputs specified in the project document appear to have been delivered in a timely and efficient manner, contributing to the many successful aspects of project outputs which are mentioned elsewhere in this report.

The project documents also identify inputs to be supplied by the GoU totalling US$ 585,000 which cover a working capital of US$ 472,000, a transfer of existing assets valued at US$ 73,000 and preoperative expenses of US$ 40,000 (see UNDP PRODOC, 1987). In the

event, MAAIF paid local staff salaries of the then Low Cost Farm Equipment Project from the date of signing the PRODOC (1987) until the establishment of SAIMMCO (U) Ltd in 1990. These salaries continued to be paid by MAAIF until September 1994, complimented by a payment of USh 60 million for raw materials made in July 1995. Total GoU inputs through the MAAIF from 1990 to 1996 amount to USh 312,875,873 (see **Appendix 12** for details of these payments).

Although it is difficult to reconcile the agreed inputs with the eventual support provided by the GoU, the Evaluation Mission recognises the importance the GoU has attached to this project and their endeavours through financial inputs so as to ensure its successful completion.

1.1.2 Efficiency and flexibility during implementation by the key actors

As has already been described in **PART A**, assistance to the Soroti facility concerning production of agricultural implements and equipment was originally considered in early 1980 by a UNIDO programming mission. Later in the year, the GoU requested UNCDF to consider financing both equipment and raw materials for the facility and UNCDF contracted Sores Inc. to undertake an investigation in 1981 concerning support for the then Low Cost Farm Equipment Project of the MAAIF. A techno-economic manufacturing analysis was carried out in 1983-1985 on behalf of UNIDO and UNDP and these agencies judged the project feasible. Instability in the region no doubt delayed project formulation until eventual signing in August 1987.

During the insurgency which occurred after the project had finally been formulated and agreed, further radical changes took place within the project target region, notably a dramatic reduction in the cattle (and hence, draft oxen) population. Although much on-farm equipment may also have disappeared or been sold during this period and until eventual project implementation commenced in 1993, there may have occurred a misjudgment of the estimated equipment needs for the region (see GEMCO, 1990). Early warning of possibly over-optimistic production requirements was reported by UNCDF in 1991 (see Shotton, 1991). UNIDO replied to these observations following a 1992 field mission by their back-stopping officer (see Belo, 1992) but clearly the discussion was never concluded before UNIDO had selected and fielded a suitable sub-contractor (Hassall & Associates) for project execution.

The sub-contractor was on site in February 1993, although their contract was only finally signed 6 months later in July/August 1993. As already reported above in **Section B.1.1.1**, investment financing was suspended in November 1993 pending further review of the project's financial viability.

This leads the Evaluation Mission to observe:

- ***failure to satisfactorily resolve the issue of project viability before implementation commenced (a <u>negative</u> observation)***
- ***rapid response of all key actors (UNCDF, UNDP, UNIDO, GoU, Sub-contractor) to commence activities as soon as possible during early 1993 (a <u>positive</u> observation)***

The Evaluation Mission considers that the extremely short duration of field visits during the early appraisal and programming missions (apart from the "GEMCO" mission of 1989) may have meant insufficient data could be collected at the time and may have lead to the serious doubts concerning project viability which eventually arose.

The Mission also observes that even since commencement of project activities in 1993, both local and regional conditions continue to change rapidly and continual management adjustments were, and will continue to be required if the Soroti facility is to become a profitable (rather than a "socially benevolent") enterprise.

The Evaluation Mission fully supports the socio-economic justification for maintaining the facility in this important agricultural production region.

1.1.3 Assistance, monitoring and backstopping provided by UNIDO

UNIDO originally fielded a programming mission back in 1980 which eventually lead, in conjunction with similar inputs from UNDP and UNCDF, to the formulation of the respective PRODOCS. Regular backstopping and monitoring missions have been fielded by UNIDO Headquarters throughout the preparatory and execution phases of the project.

Upon appointment of the sub-contractor responsible for project execution, local problems and queries were resolved by direct consultation between the project office in Soroti with the UNIDO office in Kampala which was originally staffed by the UNIDO Country Director (UCD) and a Programme Officer.

In early 1994, the Kampala post of UCD was abolished and project direction came under the Nairobi office of UNIDO in Kenya. Routine project assistance today is thus handled by the UNIDO Programme Officer. These arrangements have proved satisfactory. One should however, mention the early difficulties regarding communication between Kampala and Soroti which was then almost impossible by telephone. A radio system was installed but this also rarely provided optimum communication means. More recently, the telephone link has considerably improved, fax communication is regularly used and both SAIMMCO and the UNIDO Programme Officer are connected to electronic mail.

The sub-contractor is supported by regular monitoring and back-stopping visits by the Regional Manager from their Head Office in Canberra, Australia. Consultation on major issues normally takes place directly between UNIDO, Vienna and the Canberra office of Hassall & Associates.

All these arrangements seem to have proved satisfactory when consideration is given for the communication difficulties already referred to above.

1.1.4 Logistical and other support provided by UNCDF and UNDP

The UNCDF Kampala office is staffed by a Programme Officer who handles all local matters concerning UNCDF inputs and of course, participates in the Tripartite Reviews (TPR) and other important project meetings. Major policy and management discussions and decisions are negotiated directly between UNCDF Headquarters, New York and the executing agency.

UNIDO Headquarters, Vienna. Pertinent directives are then delivered to the sub-contractor's Canberra office.

These arrangements have normally proved both logical and satisfactory. However one might refer again to the events leading up to the stoppage of civil works in 1993/94 described in **Section 1.1.1** above. The early difficulties in communication with the Soroti project site have already been highlighted and may have contributed to the field staff in Soroti being taken completely by surprise when the directive to stop civil works a second time was eventually delivered in late September 1993.

> ***The Evaluation Mission considers that it would have been preferable for the sub-contractor's field staff to have been better informed of the doubts then arising concerning the project's viability as clearly the eventual and rapid development of events must have affected morale of all parties concerned.***

Local direct support from UNDP consists mainly of organising the technical assistance inputs and settling items such as local daily subsistence allowance payments. The majority of other UNCDF and UNDP inputs were channelled through the executing agency (UNIDO) and were delivered either directly or under the terms of reference of the sub-contractor. For locally arranged UNDP and UNCDF assistance, there was normally an attempt made by the sub-contractor to forewarn the Kampala office of intended project staff visits from Soroti so as to programme administrative matters to be dealt with as speedily and as efficiently as possible. The Mission was informed that the UNIDO Programme Officer (the UNDP officer most frequently concerned) was particularly helpful in this respect.

This is an important aspect to mention as any time lost dealing with administrative matters in Kampala causes increased daily subsistence costs which adversely affect the overhead costs of SAIMMCO, a company striving to reach a profitable situation. Both UNDP and GoU administrative procedures can be time consuming and the Mission was not surprised to learn that despite the efforts described above, extra days were still lost in Kampala not infrequently.

1.2 DETAILED ASPECTS OF PROJECT IMPLEMENTATION PERFORMANCE

1.2.1 Clarity and adequacy of inputs and planning for desired outputs

Project input funding was to be used for the civil work of reconstruction, equipment, technical assistance, training, together with incidental expenses associated with execution of the project (support staff, transport, certain expendable equipment, etc.). Some five and a half years passed between signing the project agreement and the start of the execution phase in February 1993 and so it is hardly surprising that adjustments were needed regarding the nature of some of the inputs originally foreseen. The two PRODOCS concerned will be discussed conjointly as they cover the same overall objectives.

The **UNCDF PRODOC** is relatively concise and lists a total of 15 expected "Outputs". In contrast, the **UNDP PRODOC** is much more lengthy and the Appendices are particularly difficult to interpret. The essential texts of the standard parts of both documents are almost identical, although differences do occur due to the final objectives targeted by these two funding

agencies. One must admit that the distinctive roles to be played by each of these donors would normally prove difficult to understand without prolonged and detailed study of the PRODOCS concerned. The Evaluation Mission is aware that project formulation procedure has undergone major changes since 1987 (date of the present agreements) and thus declines to comment further.

The Project Inception Report (1993) provided much clearer guidelines for field activities and has in fact formed the basis for the development of the major practical approaches applied during the execution phases of the project. Mention should also be made to the very clearly written TORs prepared by the executing agency for their sub-contractor (UNIDO, 1993).

Amongst "Inputs" outlined in the PRODOCs for the construction phase, provision was made for constructing three prefabricated houses for project staff in Soroti, an aspect subsequently modified as local housing was found to be available during this interim period.

The new plant layout had already been planned by consultants before the project agreement but in their bid, the eventually successful proposal of the present UNIDO sub-contractor (Hassall & Associates) suggested that cost reductions to the civil works could be achieved by using prefabricated roofing materials and the construction of a non-definitive structure based on received shipping containers and recovered building materials. Although the matter seems to have been discussed further, eventually the sub-contractor undertook to direct the civil works according to their original terms of reference (see Belo, 1992, p.36).

> ***The Evaluation Mission was informed by the sub-contractor that had the alternative layout and construction method been approved, significant cost savings may have been possible during the construction phase. As this would have directly affected the eventual total value of the grant/loan, this matter may have important implications.***

In the event, of the US$ 655,000 budgeted in the UNCDF PRODOC, total costs for Civil Works eventually rose to some US$ 884,000 (see Balance Sheet at 30 June 1996 in 7th Progress Report). Of this amount, some US$ 100,000 of the overspending has already been attributed to the stoppage of civil works in November 1993 (see **Section 1.1.1** above).

Inputs destined for re-equipping the facility were reviewed in the Project Inception Report (1993). The originally planned plant production levels described in the PRODOCs had already been reviewed by both UNCDF and UNIDO (Shotton, 1991; Belo, 1992). The equipment proposals made during a preparatory mission in 1990 (GEMCO, 1990) were considered inappropriate and substantially modified by the Project Inception team. The Inception team estimated that savings of some US$ 128,840 could be achieved on the equipment budget and suggested that these might be better used by purchasing additional raw materials.

As of mid-1996 when the Production Phase had already been established, total equipment investment costs had amounted to less than US$ 500,000 (see the SAIMMCO Balance Sheet at 30 June 1996 which is annexed to the 7th Progress Report). This had originally been budgeted at US$ 693,000 in the UNCDF PRODOC. A summary of these investments is included in **Appendix 6.**

The Evaluation Mission concurs in recognising the considerable cost savings achieved by the sub-contractor, whilst still ensuring that the plant was equipped with a versatile and suitably productive range of machine tools and equipment. Imaginative renovation procedures applied during the rehabilitation of existing machinery certainly played a major role in this strategy.

1.2.2 Identification of project beneficiaries

The PRODOCS do not specifically highlight project beneficiaries but mention is made in the UNDP PRODOC (p.5) of the estimated benefits which should affect 28,000 rural people of Northeastern Uganda. Both the UNDP and UNCDF PRODOCS further indicate that the project will provide direct employment for 91 workers and management personnel and generate income to the rural population of over US$ 3 million per year at full production of the facility. Project formulation procedure has fortunately since been considerably improved and so the Evaluation Mission declines to comment on this generalised and vague targeting of the project beneficiaries.

The Project Performance Evaluation Reports (PPER) required by UNDP-UNIDO enquire (Part IV, Q.5, p.1) as to *"who are or will be the beneficiaries of the project?"*. The August 1995 PPER identifies these as:

- Primary producers (farmers)
- Regional agro-industrial enterprises
- Transport industries (for the ox carts)
- Local traders (benefitting from "trade skills" to be imparted by SAIMMCO)
- End users requiring to shell groundnuts more easily
- Agro-industries using the SAIMMCO groundnut roasters
- Institutions and individuals

The "Marketing Report" included in Appendix 4 of the Seventh Progress Report (1996) is lucidly written and clearly identifies potential clients for products of the facility and indicates which of these might be most successfully targeted. These may be summarised as follows:

- Direct and Distributor sales to Aid-funding agencies
- Direct sales (to farmers and other agricultural clients)
- Direct sales of light engineering services (agricultural, agro-industrial and other)

The Evaluation Mission notes the loose and imprecise identification of target beneficiaries in the project design but recognises this was rectified to a reasonable extent during the implementation stage.

An important aspect which never seems to have been considered concerns the potential effects of the project on rural artisans who may produce either agricultural implement spare parts (eg. plough shares, landsides, etc.) or even complete equipment (ploughs, carts, etc.). These artisans may have stood to benefit from increased sales of spare parts, may have been allowed access to special raw materials (eg the boron steel imported by SAIMMCO) and may perhaps have benefitted from part of the UNDP funded training incorporated into the PRODOCs.

Alternatively, these same artisans might have been put out of a job due to locally available, high quality spare parts originating from the Soroti facility and from the impossibility of marketing their cheap, low quality implements and spares in the face of competition of the high quality products from SAIMMCO.

The Evaluation Mission, during their brief field visits, was only able to estimate that the number of such rural artisans who might have been concerned in the region is only very small. However, they concur that in order to ensure long term sustainability of mechanised agriculture in the target area (through the use of both handtools and draft animal power), their importance is paramount and at least some of their needs should have been taken into consideration during the early stages of project formulation.

1.2.3 Institutional arrangements

The institutional arrangements and the efficiency of inter-institutional arrangements for project implementation might, at first hand, seem rather complex. They have already been outlined earlier in this Section of the Project Evaluation and in general (see **1.1.2**, **1.1.3** and **1.1.4**) ...

the institutional arrangements seem to have been satisfactory for what is considered overall as a successfully implemented project.

1.2.4 Project work plans

Tentative Work Plans were included in both the UNCDF and UNDP PRODOCS. The UNCDF plan commences in January 1986 (20 months before the project agreement was signed) and extends to 1990. One should record that this plan suggested that the plant could be renovated and re-equipped so as to allow commencement of workshop production activities after some 18 months. The UNDP plan was organised in preparation for the TORs for the Sub-Contract A and covers the period January 1988 to 1992. Unfortunately, the plan cannot be readily interpreted as the page indicating the production schedule mysteriously transforms into a table of production figures, before reverting again to a Work Plan schedule. One is lead to interpret that this plan considers that the first year of limited plant production would be Year 2.

With this rather vague guidance, the Project Inception Team produced a revised Work Plan which was both clear and logical. It included a number of "Milestone" dates which were in fact, largely included in the sub-contractor's Contract for service payment purposes. In this Work Plan, limited production was scheduled to commence only 12 months after the project start-up date (ie. in February 1994).

During project implementation, the sub-contractor submitted regular updated 6 or 12 monthly work plans in each of the seven Progress Reports written to date. The most important change which has occurred during the implementation phase concerns the delay in initiating production in the reconstructed plant.

A total delay to the start-up of plant production of some 10 months eventually occurred due i) to the 6 month stoppage of civil works and ii) due to time over-

runs by the civil works sub-contractor. This has thus reduced the period of technical assistance applied on the shop floor by a corresponding amount. The Evaluation Mission considers this a most important aspect and emphasises the need to maintain the General Manager in post at least until January 1998 and preferably to April 1988.

1.3 ASSESSMENT OF THE PERFORMANCE OF THE SUB-CONTRACTORS

1.3.1 The UNIDO sub-contractor appointed for project implementation

A 4 year turnkey contract was arranged to cover the period 1 February 1993 to 31 January 1997 (UNIDO, 1993). Tasks included the following:

- Construction/renovation of the factory premises,
- Supply and installation of equipment,
- Supply of raw materials sufficient for one-year of full production,
- Supply of specialists for the operation and improved capability of the factory.
- Provision and organization of training,
- Undertake marketing, planning, administrative and other technical assistance.
- Manage the factory for three years after a one-year construction phase.

The contract was awarded to Hassall & Associates Pty who formed an association with Agrisystems (Overseas) Ltd and Kagga and Partners (Uganda) Ltd. The work programme was split amongst the associated companies such that Hassall took charge of project direction and management, Agrisystems supplied the Chief Production Engineer and the short term technical consultancy inputs and Kagga and Partners acted as the site engineers during the construction phase.

Some changes to the inputs were suggested during project implementation and agreed to by the executing agency. For instance, the 12 month post of the Financial and Administrative Expert was suppressed but a short term financial consultancy added. Elsewhere, the period of expertise provided through the post of Production Engineer was extended from the original 18 months to a total of 42 months (see **Appendix 5**). The UNDP (UNIDO) posts of Chief Technical Adviser and Administrative Liaison Officer were suppressed (see **Section A.1.6.2**).

Referring to the last item in the TORs, due to delays in hand-over of the reconstructed premises by the civil works contractor which did not take place until February 1995, workshop production could only start up in April 1995. Hence, the total period of shop floor technical assistance will only amount to some 21 months by the end of January 1997, the originally projected date for project completion. This matter will be referred to again later in this report.

It is only appropriate in this section to attempt a global assessment of the major efforts which the sub-contractor has made in order to successfully achieve the outputs as specified in their terms of reference, when the reader also refers to the detailed positive aspects concerning

their implementation performance which are mentioned elsewhere in this report. The Evaluation Mission understands that the sub-contractor's implementation performance has been favourably recognised by the funding and executing agencies. They also believe that it has been fully appreciated by the GoU, even if some differences of opinion have occasionally and inevitably occurred. As these are considered minor, they will not be discussed further.

In conclusion, the Evaluation Mission would like to note the highly satisfactory performance of the sub-contractor during project implementation.

1.3.2 The sub-contractor appointed for civil works

Wade Adams were eventually selected as the sub-contractor charged with undertaking the civil works and the site was handed over to them on 10 September 1993. As has already been described in **Section B.1.1.1**, work was then suspended from 1 November 1993 and not recommenced until 3 May 1994. The works were scheduled to take a total of 6 months and there were penalty clauses should additional delays occur.

For a number of reasons which are fully described in the Final Report of the UNIDO appointed supervisor of the civil works (Seka Associates, 1995), there were indeed unfortunate and avoidable additional delays which meant that the site could not be provisionally handed over to the project implementation sub-contractor until February 1995.

The Evaluation Mission notes the resulting reduction in time which the implementation sub-contractor could thus spend on the shop floor in the rehabilitated facility. This in fact dropped from the planned 36 months shown in their TORs down to only 21 months as to January 1997.

1.3.3 The supervisor for the civil works

A local firm was eventually appointed by the executing agency (UNIDO) to undertake the task of supervising the civil works. Seka Associates undertook this task, attending regular site meetings and eventually preparing their Final Report already referred to above. This task appears to have been accomplished with satisfaction to the contracting client.

1.4 ASSESSMENT OF PRODUCT QUALITY AND APPROPRIATENESS

1.4.1 Product range

Publicity brochures concerning the product range of SAIMMCO are presented below in **Appendix 8**. They include the 8 inch Sungura plough, the toolbar tillage system, the ox-cart and three alternative sizes of hammer mills. Other equipment which has been produced and sold in small quantities include the dam scoop, the diamond spike tooth harrow, the groundnut sheller, the groundnut roaster and hand operated oil presses.

In addition, the company has undertaken light engineering work which has involved developing specialist products from sketches, photographs or occasionally from drawings. These items include water tanks, well drilling structures, steel moulds for casting concrete road culverts, manhole covers, etc.

Non-factory products include services for water delivery within Soroti, typing, desktop publishing and photocopying services.

1.4.2 Product design, quality and appropriateness

Basic product designs may perhaps be described as "traditional" for Eastern and Southern Africa and even parts of anglophone West Africa. **The plough design**, for instance, is based on the curved beam which was mass produced in South Africa from early in the 20th century and has been reproduced in a similar form and section in other countries such as Zimbabwe and Nigeria. The differences incorporated into the "Sungura" plough are multiple and involve detailed aspects which the Mission judge as "innovative". For instance, the mainly non-functional vertical regulator linkage has been replaced by a very simple adjustment system, the support wheel diameter and width has been increased and the adjustment made simpler and does not require the use of a spanner. In addition, the handles have been reinforced and a skid provided on one handle to avoid damage during traditional transport dragging the plough along the ground without using a sledge or cart (**Fig.3** in **Appendix 11**). A horizontal regulator has been provided which although simple, is nowadays judged unnecessary.

Wearing parts are made from boron steel which tends to last at least four times as long as locally available parts which consist either of low quality imports or are made by the rural artisans. One aspect commented upon by several farmers concerns the plough weight. This depends heavily upon the section thicknesses used for the product components. A lighter plough seems to have a lower overall draft requirement but obviously will also be correspondingly weaker. The classic example in Uganda was the last importation of considerable numbers of light ploughs from India which have since proved to be grossly under-strength and have been widely rejected (even discarded) by the farmers. The "Sungura" plough maintains its reputation for robustness, a reputation earned possibly during the 1960's and 1970's and continued today with the updated design produced by SAIMMCO. Regarding weight, the Mission judges this "heavy" at 45.5 kg and suggests that the weight needs to be reduced by some 10 kg.

The toolbar tillage system or RHS toolbar (rectangular hollow section) consists of a beam welded from two RHS pieces so as to form a bend rather similar to the familiar curved beam so well known in the "Sungura" plough. Accessories available include the 8 inch mouldboard body, groundnut lifter prongs, a ridger body and a 3 tine cultivator/weeder with either reversible points or 30 cm sweeps. A planter will be developed in the near future. Such an implement is virtually unknown in Uganda (although small numbers were made for a short period by the West Alcoli Cooperative Union, or "WACU", in Gulu). It remains to be seen if through aid agencies, NGO's and development projects, interest in this implement can eventually be generated. The implement fitted with a plough weighs 43 kg and with the weeder, 49 kg which again is considered too heavy - a maximum weight of some 35 kg would be preferable.

The hammer mill has also been subjected to design efforts. The screen area has been increased by lengthening the wrap to 210°. Good balancing is achieved by using jigs during manufacture. The sheet metal body is solid, fittings are accurately made so losses are small from the mill and the cyclone. Twin hammers made from boron steel are solidly bolted to the arms and output is high when compared with mills powered with a similar engine or motor.

The ox cart consists of a low-slung box, commonly used in East Africa although strangely, carts are rarely used in Uganda. Although advertised as an ox cart, it might be advisable to also offer a model with two drawbars suitable for hitching to a donkey. Donkeys are gradually being introduced throughout South Western, Southern and Eastern Uganda and over 1,000 are now being used for transport purposes (carrying pack loads). The SAIMMCO cart would be equally suitable for hitching to single or pairs of donkeys.

The cart is characterised by having wooden bearings which could be replaced by village artisans. The box itself is tight fitting so as to avoid any losses of loose grain. It is normally equipped with steel wheels but recycled rims with old tyres can also be fitted if required.

Although the design is considered good and robust, the sale price would appear high (see **Appendix 13**) and may place it out of reach of most farmers. An attempt to reduce production costs would merit attention.

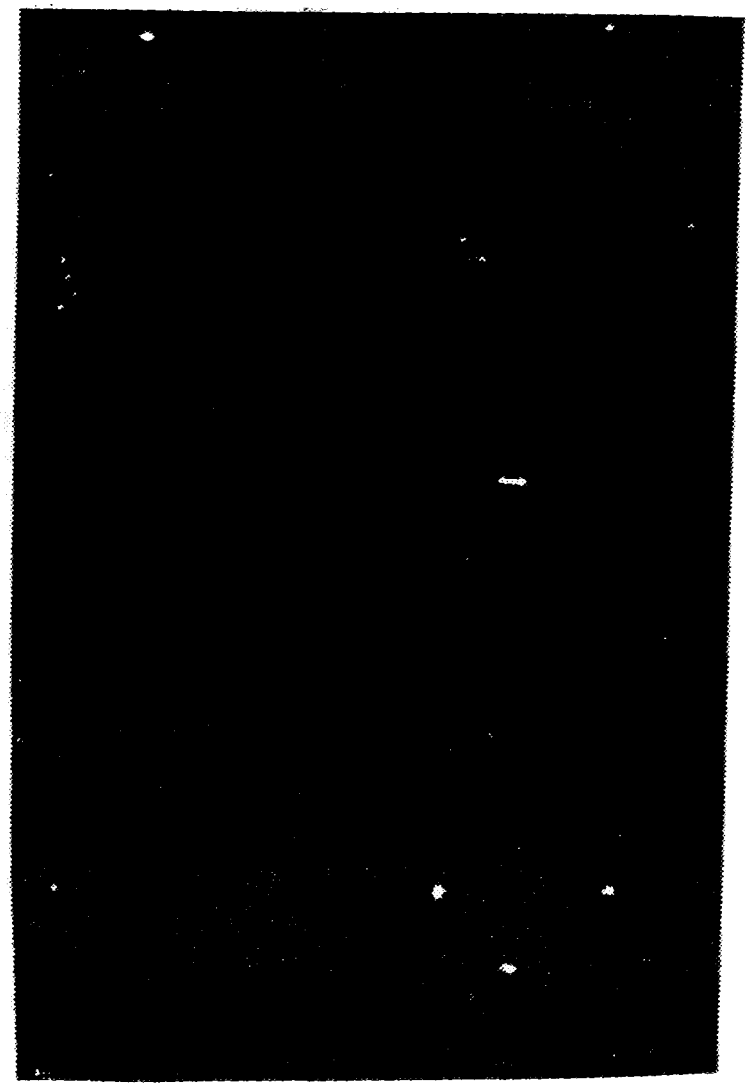


Fig. 1 The SAIMMCO cart with capacity of 1 ton.

1.4.3 Assessment of other plant activities

Other activities include **light engineering** and repair or manufacture of spare parts. Many of these specialist orders require designs to be developed from sketches, photographs or simply from ideas of the client. Specialist jobs for reconditioning damaged components brought in from agro-industrial or other clients also require imaginative analysis before a suitable repair method can be identified. These jobs still rely heavily upon the specialist experience and knowledge of the technical assistants but gradually through on-the-job training, the shop floor staff is gaining experience as to how to tackle these specialist orders.

Several NGO's have requested small-scale processing and other equipment for their projects. Examples include a screw press (in this case used for shea butter), a groundnut sheller

and a groundnut roaster. SAIMMCO have also made animal drawn dam scoops for earth moving during construction programmes in the rural areas. These designs have usually been based upon already proven designs such as those publicised by groups involved in what is known generally as intermediate or appropriate technology. The product quality of equipment such as this made by SAIMMCO has been very well received by the clients.

1.4.4 Assessment of non-factory production activities

SAIMMCO is also marketing a number of non-factory services. The first of these is available due to the factory having a deep bore-hole well on site, so allowing the sale and distribution of clean drinking water to many clients in the town. The water is delivered by a SAIMMCO truck fitted with a tank. Secondly, they have a good range of office and computer equipment which is not available elsewhere in Soroti. SAIMMCO is thus able to market services such as typing, photocopying and desktop publishing. Thirdly, SAIMMCO have also accepted contractual transport services, mainly truck rental.

1.5 ASSESSMENT OF THE ROLE PLAYED BY THE GoU

1.5.1 Delivery of inputs

The delivery of inputs by the GoU has already been described above in Section 1.1.1 and it was observed that this appears to have been generally satisfactory.

1.5.2 Participation in implementation

The GoU supplied project personnel for the posts of National Project Director, Production Engineer, R&D Engineer and Company Accountant (see **Appendix 5**). In addition, the two Ministries concerned (Finance and Agriculture) were normally present at the Tripartite Reviews. One notes that relatively few site visits were made by senior officials during project implementation.

> ***A number of aspects leads the Evaluation Mission to consider that Government participation could have been improved to the benefit of all parties concerned.***

For instance, repeated mention is made in the TPR Minutes to the establishment of a Project Advisory Committee (PAC) and yet this has never been accomplished . Perhaps most important matters were dealt with during the TPR's themselves but if this was indeed the case, one wonders why insistence on forming the Committee was reiterated for so long.

A second aspect merits attention even at this late stage in project execution and concerns marketing. It appears that although some aid agencies are now aware of the SAIMMCO product range, others are not. For instance the Mission learnt that **"Global 2000"** may be planning to import over 100 "Rumpstad" type ploughs from Tanzania in the near future. These ploughs have previously been considered unsuitable for Uganda (see Project Inception Report, 1993). It is felt that MAAIF could perhaps have been more dynamic in publicising and in assisting the marketing of the SAIMMCO product range and services and also in indicating which types of ploughs are generally preferred in Uganda.

A third aspect involved the formulation of the Conditions of Service for the SAIMMCO personnel which has taken considerable time and, in the view of the Mission, has given rise to labour dissatisfaction and even temporary work stoppages over the last year. It is understood that this matter is now close to solution.

1.6 ASSESSMENT OF THE PLANT POTENTIAL AND ITS PRIVATIZATION PLANS

1.6.1 Market potential and conditions for plant products

The main justification for the project, as given in the 1987 PRODOCs, is that one of the key impediments to accelerated agricultural development in Uganda has been identified as a lack of farm inputs and particularly of implements.

The GoU recognises the important role of the small farmers in the agricultural sector and hence the development of the economy through increased productivity of these farmers is an essential Government priority.

Due to the dramatic reduction suffered by the animal population in the 1980's described above (see **Part A, Section 1.1**), a re-stocking programme has been undertaken and is now well advanced as shown in the following Table:

Effect of re-stocking programme on Soroti cattle population:

1980	360,000 (original population)
1996 Oct.	85,000 (of which 75 % are oxen)
1996 Dec. est.	100,000 (of which 75 % are oxen)

Source: District Agricultural Office, Soroti

The progress of the re-stocking programme has been slower than originally anticipated and stocking levels have only reached about 25 % of the 1980 level in the Soroti area. Priority has been given to bringing in oxen and in fact the draft animal population may soon reach 1980 levels.

The loss of draft animals had a major impact on the agricultural production in Uganda. However, it seems that the loss of implements was much less acute than that of animals and although badly in need of repair, ploughs are still available in significant numbers. SAIMMCO had little difficulty in recuperating some 5,000 old plough beams from the close to Soroti, with a view to converting them back into fully operational ploughs. Other equipment (mainly ploughs) has been sold locally for scrap or exported across the border to Kenya, although actual quantities involved in this trade are difficult to estimate.

As part of emergency measures, considerable importations of ploughs (perhaps 5,000) were made from India through the Agricultural Development Project (ADP) and also perhaps 3,000 through the Uganda Commercial Bank (UCB). These were sold at prices subsidised both within the country of origin and locally in Uganda which has certainly distorted local costs for ploughs and has influenced the marketability of the more expensive SAIMMCO model. Although

ADP and UCB plough stocks are now exhausted, a secondhand market still exists. There also remain stocks of imported shares and some landsides which can still be purchased locally for half the price of ones manufactured by SAIMMCO, which is less than the actual material cost for these components. The local blacksmiths also make shares at even lower prices, however their quality is generally unsatisfactory.

The demand for ploughs and spare parts for SAIMMCO ploughs has thus been lower than projections described in the PRODOCs. Although there is a clear difference in product quality, SAIMMCO producing a far superior product, this has not yet been reflected in their sales figures for this type of equipment.

As the impact of the restocking programme takes effect and existing low quality equipment imported by ADP and UCB falls into a state of disrepair, it is likely that the market will again recover. It should be understood however, that the SAIMMCO profit margin on such equipment is only marginal at some 10 - 15 %. Their prices have beer further increased by the introduction of VAT in July 1996 amounting to 17 % which would indicate that additional caution should be exercised when projecting future markets.

> ***The Evaluation Mission considers that sales of agricultural implements directly to individual farmers are likely to remain very low in the near to medium future and overall demand will be much more strongly influenced by the various aid agencies and NGO's operating in the agricultural sector where product quality rather than price is generally considered of paramount importance.***

The project always pianned a diversified production at SAIMMCO and other agricultural equipment produced includes animal drawn carts, a spiked tooth harrow, dam scoops and hammer mills. Of these, the hammer mills have the highest cost value and about 40 % of revenues between 1 February and 31 July 1996 represented agricultural equipment other than ploughs. The main clients have comprised aid agencies and NGO's, reinforcing the view highlighted above. It should also be noted here that the sale value of SAIMMCO hammer mills still remains well below comparative prices of imported models.

In order to offer a rough estimation of potential sales of this basic agricultural equipment, the Evaluation Mission presents the Table of observations which appears below. It is noted that the Mission foresees sales of this type of equipment at levels far below those predicted in the PRODOCs and also considerably less than those as revised by the various review missions. The sales volumes should be considered as only indicative but it is thought that the order of magnitude is reasonably realistic (within a factor of 5 - other predictions are frequently more than 10 times the levels indicated).

Equip-ment	Market limitations	Recent Annual Market (1989-95)	Possible SAIMMCO market share
Plough	Some 8,000 ploughs imported and distributed at highly subsidised prices by ADP and UCB between 1989 to 1994. SAIMMCO model robust but double the price of second-hand, poor quality ploughs currently on the local market. SAIMMCO profit margin on ploughs low.	500-3,000	500-1,500
Plough spares	Very cheap but poor quality spares originating from ADP and UCB importations still available at very low prices. Blacksmiths also produce very cheap spare parts. SAIMMCO plough spares are costly and rarely purchased by individual farmers. They are made of highly durable steel (boron steel).	Perhaps for 10,000 ploughs	Perhaps for 1,000 ploughs
Carts	Rarely used in Uganda (which is surprising). The SAIMMCO model is relatively costly but robust and of good quality. A model suitable for donkeys should be developed (a cheap wooden one is already manufactured in Karam-oja District).	100-500 (but mainly donated or well subsidised)	100-200 (but could rise dramatically with promotion)
Toolbars	Relatively unknown and not used currently in Uganda. Marketing this item will require active assist-ance of the agricultural extension services.	10-20	20-40 (but could rise slowly with promotion)
Hammer mills	The SAIMMCO model has proven efficient and highly competitive in price when compared with imported models. The profit margin on hammer mills is inter-esting to SAIMMCO.	100 per year reported in the early 1990's	10-50 (however the market could rise sharply with aid interven-tions)

The cotton sub-sector is being revitalised mainly through interventions stimulated by the World Bank. The Smallholder Cotton Rehabilitation Project (SCRP) is now completed and the much more significant and nationally directed Cotton Subsector Development Project (CSDP) is now fully operational. Privatisation and rehabilitation of cotton ginneries constitutes a major element of this Programme and SAIMMCO has already established itself as the only service company available in Northeastern Uganda, capable of undertaking complex repair tasks and fabricating valuable replacement parts and components for the ginneries.

Whereas this was originally envisaged as an activity which would only represent some 25 % of company revenues, this has already reached some 33 % in 1996. Other agro-industries are also likely to expand or be renovated and market prospects seem bright for these "light engineering service" activities.

Non-factory related activities of SAIMMCO have demonstrated that with judicious management, these may also be marketed within the local environment. Revenues originating from photocopying services, desktop publishing, water delivery and truck rental have already been mentioned elsewhere in this report.

1.6.2 Assessment of the SAIMMCO Marketing Strategy

A marketing strategy has been progressively developed by management personnel since the commencement of project activities. This effort was further reinforced during two short term inputs of a marketing consultant in 1995 which served to clarify the strategy and highlight what were considered to be the most crucial aspects. **Appendix 16** summarises the major recommendations suggested for adoption as the marketing strategy of SAIMMCO during this marketing consultancy (see Progress Report No.7 for the full report of these missions).

These marketing recommendations are fully endorsed by the Evaluation Mission.

It was observed that several of the key points of the proposed marketing strategy had already been addressed whilst others remained in suspense at the time of project evaluation. It should be appreciated that the actual production of agricultural implements has only has been on-going for about 16 months, most of the earlier effort having been devoted to the reconstruction and re-equipment of the factory. Efforts have also been directed with priority towards on-the-job training of the shop-floor staff.

It is, however, the opinion of the Evaluation Mission that an increased marketing effort will be needed in order to achieve a satisfactory profit level through an increased sales volume and through achieving consequently lower unit overhead costs.

Some of these issues are highlighted below:

1.6.2.1 Marketing relationship with MAGRIC (Uganda) Ltd.

A distribution agreement was made between SAIMMCO and MAGRIC (Kampala) towards the end of 1995. MAGRIC (the company name, not an acronym) is currently one of the

largest distributors of agricultural supplies, including equipment, in Uganda. It was established privately over 30 years ago by the father of the present owners.

The Evaluation Mission supports these steps taken to appoint MAGRIC as the main dealer in Kampala as this should relieve SAIMMCO of the major task and expense of their marketing function in Kampala and also other areas in Uganda covered by MAGRIC's own internal distribution agreements.

1.6.2.2 Distribution of SAIMMCO leaflets and news letters

The Mission supports the strategy of distributing leaflets and news letters which was already initiated before and during the marketing consultancy. However the Mission remarked during its field visits, a total absence of SAIMMCO sales literature at MAAIF offices in Entebbe, Tororo and Soroti - indeed these had to be printed specially even at the factory premises in Soroti when requested by the evaluation team. No evidence was observed concerning the development of a news letter.

The brochures in question are reproduced below in **Appendix 8**, however, distribution to date appears to have been very limited. As reproduction costs are relatively cheap and impact could be considerable if distribution is well targeted, the Evaluation Mission will recommend later in this report that this publicity aspect should receive additional emphasis in the immediate future.

1.6.2.3 Relationships with the ginnery and other agro-processing industries

Specialist repair and rehabilitation tasks for the cotton processing industry (ginneries) involving light engineering have already been undertaken by SAIMMCO. Activities have also included the manufacture of small batches of specialist agro-processing equipment including presses for shea nuts and small scale processing equipment for groundnuts.

As the cotton industry also forms an essential component for the re-structuring and privatisation process in Uganda, this sector is predicted to develop into an important future customer base for SAIMMCO. This view is further supported by the fact that the cotton industry has traditionally played a major role in easing access to inputs such as animal drawn ploughs and carts to those farmers contracted for the supply of cotton.

The Evaluation Mission judge it crucial that SAIMMCO continue to develop their commercial relationships with the agro-processing industry with particular reference to cotton.

1.6.2.4 The commercial interface of SAIMMCO

Relatively few individual clients arrive at the factory site in Soroti to effect direct purchases but there is still room to improve the immediate commercial image of the enterprise before this modest clientele. Whilst company products are now on display and a price list is pinned to the notice board, no publicity leaflets were at hand when the Evaluation Mission visited, nor were product price lists available for immediate distribution.

Whereas a full commercial department cannot be justified, there remains considerable possibility to improve the current commercial interface at the plant.

1.6.2.5 Marketing costs and potential engagement of MAAIF assistance

SAIMMCO remains in the early stage of building up its markets and production capabilities. Sales remain low and so there is a need to maintain marketing costs at a low level, whilst directing marketing efforts towards the key and most potentially accessible clients. Management staff are already involved in this effort (without a marketing department having been created) but there appears room for additional marketing support from the GoU Ministries directly concerned, particularly the MAAIF.

In this vein, the MAAIF could usefully engage its extension staff in assisting in the promotion of SAIMMCO products. The Evaluation Mission remarked during their field visits that farmer awareness of a nationally manufactured range of agricultural implements was scarce or even non-existent. One should however modify this observation by comments made by some groups having benefitted (or who might potentially benefit later) from SAIMMCO equipment supplied through aid agency interventions - various Veterans Associations and the Bukedea Women's Struggle Association fall within this category. These groups categorically insisted that they preferred to use SAIMMCO ploughs, if available.

MAAIF continues to execute a strong training programme concerning improved utilisation of draft animal power (oxen and donkeys). To date, SAIMMCO equipment is not used during these courses, nor is it distributed to the Contact Farmers who are later charged with the task of multiplication of these training efforts. Clearly, a funding problem may constitute a major constraint in this respect but such an anomalous situation should not be allowed to remain now that SAIMMCO is striving to achieve full profitability and become a marketable asset for successful privatization in the near future.

The Evaluation Mission thus supports the maintenance of the costs of SAIMMCO marketing activities at a low level but will recommend later in this report a more committed involvement of the MAAIF in its marketing efforts up until the privatisation process is accomplished.

1.6.2.6 A more aggressive marketing approach towards the aid-agencies and NGO's

The Mission would like to stress that they feel that emphasis still needs reinforcing concerning the approach of SAIMMCO towards taking more aggressive steps to reach the various aid agencies and NGO's operating within the country. The appointment of MAGRIC (Uganda) Ltd. as their main distributor should be considered as only part of this process (see **1.6.2.1**). Alternative and complementary strategies might usefully be highlighted during an additional marketing input which the Mission has accordingly placed amongst its recommendations at the end of this report.

1.6.2.7 The price factor

The effect of the low cost ploughs imported through the ADP and UCB emergency interventions have already been fully described above in **Section 1.6.1**. Current market values of these ploughs now appear to be around USh 50,000.

The present price of a SAIMMCO plough (including the recently added 17 % VAT) is now USh 111,000, which is considerably higher. Despite the superior quality of the SAIMMCO plough, it will most probably take some time before the market for ploughs will be adjusted to what might be described as "normal" market conditions.

Individual small farmers are presently having great difficulty in understanding this important price difference and only rarely appreciate the vast difference in product quality on offer. The Mission was, however, able to interview a significant number of farmers who did indeed appreciate product quality and who pledged to buy SAIMMCO products as their future needs became apparent.

The price of the SAAIMMCO cart, a rarely used item of agricultural equipment in Uganda, is also relatively high and it is considered that it might be possible to further reduce production costs in future.

The cost and quality of the SAIMMCO hammer mill range is significantly lower than models of similar capacity which are currently imported - it is thus highly competitive.

1.6.3 Assessment of the financial arrangements planned for privatisation

1.6.3.1 Arrangements made for privatisation

The 1987 PRODOCs stipulated that the workshop was to be incorporated *"as a legal corporation including appointment of a corporate Board of Directors"* (UNCDF PRODOC Outputs) and transformed *"to a legal autonomous entity under the Uganda Company Act"* (UNDP PRODOC Activities).

Privatisation issues were first mentioned more explicitly in the Inception Report dated 31 March 1993. Here it was indicated (p.9 of the Inception Report) that "SAIMMCO, when profitable will be privatised under the Government of Uganda Programme for divestiture of publicly owned companies (Category 4)".

During the Tripartite Review Meeting held on 5 October 1994, the issue of privatisation was again brought to the attention of the partners. At that meeting the actual intentions of privatisation were discussed and a proposal regarding a joint venture agreement was brought up whereby a privatisation strategy for SAIMMCO was to be planned for completion in 1997. It was further agreed that the Project Advisory Committee (PAC) was to include a participation of at least 50 % from the private sector (to date, the PAC has not been fully constituted and has never convened - see **Section 1.5.2** above).

During the 1994 TPR, it was agreed that the GoU should clarify for the SAIMMCO management, its plans and objectives concerning privatisation of the factory. It was further

suggested by UNDP representatives, that the Government should add SAIMMCO to the privatisation priority list and commence all necessary actions related to the privatisation of the company.

The privatisation issues are still at a preliminary stage of realisation. Several phases are involved and these have been outlined in the Schedule for Privatisation as agreed upon at the October 1996 TPR (see the TPR Minutes in **Appendix 9**). An eventual handover date of July 1997 is envisaged in this schedule.

The Privatisation Unit, under the Ministry of Finance, is presently accomplishing the initial steps necessary in preparation for the eventual bidding process which will follow advertising the proposed sale of SAIMMCO. These steps include:

- Preparation of the draft bid documents
- Arrangements for the financial audit of SAIMMCO
- Arrangements for the asset valuation of SAIMMCO

It should be mentioned that the Privatisation Unit, when visited by the Evaluation Mission, expressed themselves to be very much in favour of introducing an open bidding process based on an official advertisement.

Considerations concerning a proposed privatisation strategy were formulated by the Privatisation Consultant and are presented in the 6th and 7th Progress Reports (Hassall, 1996). The proposed schedule for this process is reproduced, for reference, in **Appendix 17**.

1.6.3.2 Financial arrangements and future conditions for privatisation

The UNCDF PRODOC indicates that the UNCDF investment finance to cover the construction, equipment and raw materials for SAIMMCO should be in the form of a grant to the Ministry of Agriculture, channelled through the executing agency, UNIDO. The Ministry should then arrange for the actual physical inputs to the workshop/factory, who would then be responsible for repayment of the loan to the Uganda Commercial Bank according to the terms and conditions of the loan agreement worked out between the Ministry, the UCB and the factory (SAIMMCO).

The loan conditions were to consist of:

- minimum 5 % interest on the outstanding amount of the loan;
- repayment over a period of not more than 16 years.
- maximum 3 years grace period, presumably starting from the first year of production.

It was further outlined in the project agreement, that the funds generated from the repayment of the loan made in Uganda Shillings should be accumulated in a special UCB bank account. The funds would then be used later for further development projects proposed by the GoU and as approved by UNCDF.

The 1993 Inception Report indicates that SAIMMCO will be privatised once the company becomes a profitable enterprise.

This rather complicated mechanism to ensure reimbursement of the grant money to the GoU, converting it into an internal loan to SAIMMCO, would now appear to be contrary to the original objective of the scheme whereby a fund would be generated so as to finance additional and future development projects as approved by UNCDF. Under the present circumstances of privatising SAIMMCO in the near future, maintaining the loan concept will merely postpone the moment when these funds will be reimbursed and made available for the originally planned scheme - in fact full repayment would not be made until after 16 years have passed from the project inception date.

> ***The Evaluation Mission considers that it would be much more logical, in the light of the planned privatisation of SAIMMCO, to envisage the "loan" as described in the PRODOCs as reimbursable through the cash which will actually be generated immediately the enterprise is sold. It is realised that the sale value of SAIMMCO might not reach the original UNCDF grant level but at least the funds will then be immediately available for reinvestment in development projects and such use could still be tied to UNCDF approval as originally agreed in the PRODOCs.***
>
> ***It remains to resolve the issue as to how this could conveniently be achieved as under present proceedures, all proceeds from the sale of public enterprises in Uganada revert to the "Divestiture Fund" and the future use of such monies would not normally be subject to UNCDF approval, being an internal matter for consideration only by the GoU.***

This concept for treatment of the anomaly of the "grant" or "loan" has been adopted in discussions of the potential for cost recovery (**Section 3.3** and **4.2**) which appear later in this report. The "loan" value will thus now depend mainly upon the present valuation of the company assets.

1.6.4 Assessment of the plant's organization and management

The organigram of SAIMMCO is presented in **Appendix 7**. This has remained basically unchanged since first presented in the 2nd Progress Report with the main difference being that the General Manager is now in overall charge of the plant. At the time of the evaluation, the posts of Company Accountant, Foreman, Chargehand-Electrical and Chargehand-Assembly were vacant.

Management style is very much with a hands on approach with the GM, CPE, PE and R&D engineers spending much of their time on the shop floor, both supervising the work and providing on-the-job training.

Work tasks are very varied and only rarely is batch production undertaken in significantly large production runs. However, should large orders be received, the plant layout is such that important production runs can be readily organised.

The general organization of machinery on the shop floor has been conceived in order to provide maximum flexibility during production. Routine manufacturing and fabrication work makes maximum use of templates and jigs which are stored in the centre of the workshop so that they are readily accessible from all corners of the shop floor.

An inconvenience in the floor design is the central location of the tool and components store dictated in the contractor's original terms of reference - this unnecessarily limits flexibility in using the available shop floor space by blocking off the central section. Further problems arose due to the original building design in that the roof height was too low, restricting ventilation on the shop floor. This has now been partially solved by fitting extractor fans.

Safety procedures are emphasised by management and the workshop staff are issued with safety boots and wear protective clothing as necessary. The accident record of SAIMMCO is consequently very satisfactory and only a single major incident has occurred since production commenced.

The basic financial administration and stock control procedures have been gradually developed since the early stages of the project, being continually refined as necessary. Records are maintained both manually and on computers although fully computerised control is still only at a relatively early stage of development.

An aspect which might influence interested parties during the privatisation process concerns the general technical level of skills which has now been attained by the shop floor staff. The Progress Reports indicate that skills levels have considerably improved and indeed, a number of staff have now become very adept at designing and making production templates and jigs so as to ease batch production and improve manufacturing quality.

Much of the plant activities presently involve one-off specialist jobs where design ideas brought in by the client have to be translated into practical solutions so as to make the required piece of equipment or replacement component. This type of work requires many years of experience in order to become fully skilled. There is no doubt that on-the-job training provides a relatively short cut but the Evaluation Mission was informed that in the absence of technical assistance on the shop floor (after project termination), much of this specialist work would be difficult to tackle. This seems to emphasise that after privatisation, such practical shop floor experienced production supervision will continue to be needed. This is certainly nothing unusual and large scale workshops such as this typically have a highly skilled and experienced supervisor directing shop floor activities on a full-time basis.

Whilst it was not possible to enter into a detailed analysis of the plant's organisation and management, the Evaluation Mission are pleased to note their general satisfaction with the arrangements adopted as demonstrated by the high quality of the work undertaken.

It is noted that some of the workshop activities, particularly the light engineering service work, is heavily dependant on the technical expertise of the sub-contractor. This might have important implications after termination of the project and when the privatisation process is completed.

2 PROJECT IMPACT: SOCIO-ECONOMIC ANALYSIS

2.1 LOCALISED IMPACT OF SAIMMCO

2.1.1 Impact of the plant as a source of employment

SAIMMCO presently employs 42 administrative and shop floor staff. The company also receives a number of students and currently 10 are working at the plant of which it is expected that 4 will be offered employment by SAIMMCO in the near future. In addition, a further 2 technical and management staff remain direct employees of the MAAIF.

Salary levels of the two MAAIF staff follow the public service scale and due to seniority of the personnel concerned, remuneration is comparatively high. The wages of the direct employees of SAIMMCO have also been related to public service scales but in general they are much lower and indeed a source of frequent discussion within the workshop. For the personnel currently employed, these salary levels range from a minimum of USh 55,000 to a maximum of USh 123,000 per month. The Evaluation Mission was informed that these levels are, in most cases, almost double what was paid in early 1994. It is also understood that they are commensurate with levels which might be expected in the private sector, although as has already been described, SAIMMCO is a unique industry currently operating in the Soroti District.

When one considers the total annual salary bill for the workshop, it is seen that some USh 45 million is injected into the local economy each year, a significant amount for a town the size of Soroti where employment opportunities are scarce.

It was not possible to estimate the average family size of the staff but it is known that in this region, families tend to be large and indeed, polygamy is still practised. It might not be unreasonable to estimate that an average family size of 10 might be directly benefitted by a family member being employed at the facility, leading to a total of perhaps 500 direct beneficiaries at the present time.

Possible direct impact of the project within these family groups can only be gauged very subjectively. Education and health facilities are available in Soroti and hence available to those SAIMMCO families living in or near the town (the majority of employees). Access to these facilities does involve a modest cost and one may imagine that those having gainful employment will thus have easier access - a probable positive impact of the project. However in view of what are considered relatively low wage levels of the workforce, it is unlikely that this impact is more than moderate.

A number of the staff have been employed at the facility for over 10 years when it was still known as the Low Cost Farm Equipment Project. These are the more experienced staff who were retained when the workforce was considerably reduced at the start of the present project in 1993 - staff positions were then cut from about 90 down to 50. Additional staff have gradually been engaged, often being trainees who have later been offered full time employment due to their demonstrated abilities.

Regarding gender, one woman works on the shop floor as a skilled machine tool operator. A small number of women are also employed in administrative duties (about 4) and another woman, external to the workshop, comes in each day to prepare the tea and to sell small snacks to the workforce.

Whereas in strict monetary terms, it is difficult to remark on a major impact due to the existence of the workshop, a fundamental aspect to also consider concerns the impact due to the training undertaken by the project. There is no doubt that the skills level of the workforce has been dramatically improved during project execution. This constitutes a highly valuable resource in the region of Northeastern Uganda where such skills are virtually absent outside the workshop. Indeed such a resource has significance even at a national level.

As regards poverty alleviation, the acquisition of technical skills certainly improves the "marketability" of the workforce and even in the unlikely event that SAIMMCO should close. the staff might be expected to be able to find alternative employment, although they would no doubt have to move to more industrial areas of the country.

This highlights a further aspect of project impact in that the skilled workforce has been encouraged to remain in this agricultural region, a region having little or no engineering infrastructure operational at the present time. As such, the plant serves to counteract the tendency of urban migration not only of the SAIMMCO workforce but also of other direct and indirect beneficiaries as described below.

2.1.2 Impact of the plant on the surrounding community

The water supply available in Soroti is of doubtful quality whereas that obtained from the well on the workshop premises, pumped from some 35 metres depth, is certainly potable. An important market has been identified for water from this well and there is little doubt that at least some of the surrounding community have benefitted. The water is delivered by a small SAIMMCO lorry fitted out with a tanker.

SAIMMCO have undertaken important service work for locally based enterprises and although rather indirect, there is no doubt that there have been benefits for the community. Work undertaken concerning agro-processing equipment will be considered below in **Section 2.2**. However other service work, unrelated to agriculture, is also benefitting the community - construction of water tanks, well drilling rigs, moulds for construction of road culverts. machinery and equipment component repairs, etc. can only cause a positive impact, although difficult to measure.

There has been a steady improvement in the availability of some raw materials and components in Uganda since start-up of the project and SAIMMCO often avails itself of the local market. Although supplies in Soroti are only very limited, purchases are made elsewhere in the country (mainly Kampala), so contributing to a gradual build up in trade. Again, benefits can only be highly subjective but they are certainly not negative.

The Evaluation Mission concludes that there has certainly been an impact both on the families of the plant employees and on the surrounding community.

Whilst this may only be judged very subjectively and beneficiaries may not even be aware of the benefits, the impact is certainly positive.

2.1.3 Management/labour relationships

When considering organisation and management of the SAIMMCO workforce, it is relevant to recall the history of the company which although a private entity when first established, had been under the direct control of the MAAIF from 1976 and until the present project commenced its implementation phase in 1993. Indeed, a period of only 16 months has passed when production work has taken place in the renovated premises and attention has been directly focused on transforming the workshop into a profitable enterprise.

Clearly, the necessary change in attitude which must be encouraged in the workforce in order to achieve this objective is quite radical and it is only through strong management leadership that this may be achieved.

There is evidence that the workforce had generated an impression amongst themselves that once the project started, their levels of remuneration would be significantly increased and that other fringe benefits might be offered. Although this was obviously an over-optimistic view, there has certainly been some disappointment when these hopes were only partially fulfilled (wage levels, although still low, have indeed risen significantly).

Self-disciplinary matters have also had to be addressed, punctuality, absenteeism and work efficiency being the most important. Various measures have been introduced which have improved the situation but further effort in this sense is still required. Not all measures are always understood, perhaps due to the many years spent by the more senior staff in an environment of public service. For instance, an incentive scheme was attempted whereby the more productive staff received a 10 % bonus for their efforts. Rather than causing the hoped for incentive to the few, it caused widespread discontent to the remainder who felt "penalised" as the bonus had not been awarded to them. The scheme has since been discontinued.

Neither has it been easy to instill a sense of personal allegiance to the establishment, now that the future depends upon the economic viability of the production effort. This is not unusual in a large factory, but should eventually be attainable in one the size of SAIMMCO. Again a bonus incentive offer serves as a good example: some months ago, a rushed order required completion before the end of the Friday afternoon shift and bonuses were offered to complete the order on time, even if the staff would have to remain shortly after the normal 5 pm end of shift. Although production was good throughout the day, the order was still incomplete by the deadline but only a handful of staff remained after hours to complete the task. Either the concept of allegiance was misunderstood or the staff had other urgent commitments elsewhere.

From the foregoing observations, it is clear to the Evaluation Mission that only through strong management may these changes be encouraged. Senior management style was described as "unusual" to the team, but perhaps it is more important to assess whether it has been effective. It is the opinion of the team that this indeed has been the case.

The workshop staff have been encouraged to form a representative structure amongst themselves, both by management and through a letter emitted by the Ministry of Labour and Social Affairs. They requested funds for these purposes, a certain amount of time off, sitting allowances, together with a room and equipment. Such an organisation has so far not been formed although they did operate a Worker's Fund amongst themselves for a short period. Management have stressed that it is the workforce themselves who must make all necessary arrangements, pointing out that the Soroti office of the Ministry of Labour and Social Affairs could provide any assistance deemed necessary.

In the absence of a representative structure, management have occasionally held open discussions with the entire workforce. One such session lasted two days and had the objective of carefully explaining the situation of the company's finances. However the feedback of staff concerns has not been entirely satisfactory and a recent stoppage took management completely by surprise. This was related to staff worries about compensation payments, letters of appointment and conditions of service which will have particular importance in the build up to privatisation. In fact the hold-up in these administrative matters is within the MAAIF but that this matter caused a stoppage of work is regrettable.

The Evaluation Mission considers the organisation of a representative structure for company staff should continue to be encouraged and this, more actively than in the past.

2.2 IMPACT OF COMPANY PRODUCTS IN NORTHEASTERN UGANDA

2.2.1 Recapitulation of the company product range

SAIMMCO produce the following products:

- Animal drawn equipment (8 inch plough, universal toolbar, 1-ton cart, spike tooth harrow, dam scoop)
- Small-scale agro-processing equipment (hammer mills, oilseed screw press, groundnut sheller, groundnut roaster)
- Light engineering services for the agro-processing industry (reconstruction and fabrication of components for ginneries)
- Other light engineering services (equipment construction, repair and rehabilitation for non-agricultural activities)

A more detailed description of some of these products has already been presented above in **Section B.1.4.1** above.

2.2.2 Identification of the end-use of plant products

Firstly, it is relevant to refer to the heading of this Section which refers to "Northeastern" Uganda. Whereas the small-scale agro-processing equipment and the light engineering services have targeted this region, the animal drawn equipment, although showing limited sales to date, has been distributed to many regions of the country and thus has had a potential impact at national level.

Secondly, the description which follows concerning "end-use" of the company's products has been prepared for the reader who has little knowledge of the agricultural sector. It is accordingly presented in the form of an "aide memoire" in small type.

End-use of animal drawn equipment:

A distinction should first be drawn between what is often called "ox equipment" and what is referred to in this text as "animal drawn equipment". In Uganda, frequent reference is made to "ox" equipment as this was, and continues to be, the main source of draft animal power used in the country. It is not, however, exclusive and indeed donkeys have been traditionally used as pack animals for many years in the Karamoja region in Eastern Uganda. Over the last three years they have also been introduced to the Southwestern and Central regions of the country with noticeable impact - the donkey population was estimated as over 1,000 when the Evaluation Mission enquired from the MAAIF specialist during their visit.

Recent interventions by the MAAIF to promote an increase in total work energy applied to agricultural operations has emphasised the use of draft animals rather than draft oxen. It has been recognised for many years that energy available from human resources is insufficient in Uganda to exploit the important arable areas available for production (see Section A.1.1) but which cannot be cultivated due to this deficiency in energy availability. Previous attempts to solve the energy deficit crisis in the 1960's and 1970's through the use of tractors has only had success on large scale plantations - the experiment failed completely at the smallholder production level. The GoU, through the MAAIF, is now actively encouraging the more widespread adoption of animal draft power (ADP) to replace the previous concept of "ox cultivation"

Playing on these words and phrases may seem irrelevant. However, the term "ox cultivation" is so restrictive as to be totally unacceptable in modern Uganda. It also has serious implications for the products of SAIMMCO which as summarised above, include a cart and a dam scoop which cannot even be classified as "cultivation" equipment.

With this brief foreword, a similarly brief description will be presented concerning the end-use (actual or potential) of the company product range:

Soroti Sungura plough, 8": This is the basic equipment used for opening up land prior to seeding or planting.

Universal (RHS) Tool Bar: This consists of what is known as a universal toolbar to which a range of accessories may be attached. The SAIMMCO model currently includes the following: 8 inch mouldboard plough for opening up the land, weeder consisting of 3 tines with either reversible points or 30 cm sweeps (this is operated between the planted crop rows); groundnut lifter consisting of an inclined rake which replaces the mouldboard on the plough body (this raises the groundnuts from the soil, inverts them and performs a modest cleaning operation in preparation for manual harvesting); ridger (to build up soil around the row crop plants and to assist in surface irrigation or soil conservation measures). A seeding attachment for this toolbar is currently under development at SAIMMCO. It is to be noted that this type of equipment is almost completely unknown in Uganda and will require intensive extension interventions to bring about its adoption.

Cart, 1-ton capacity: For transport of produce and materials. The SAIMMCO model has a single drawbar and is thus suitable for use with a pair of animals (either oxen or donkeys). A model for use with a single animal (an ox or a donkey) would only require modification to the drawbar, two drawbar poles being needed instead of one.

One is tempted to mention cart usage in non-agricultural tasks in West Africa where donkey carts often undertake urban refuse collection and disposal tasks. Surprisingly, carts are rarely used in Uganda, again emphasising the need to coordinate SAIMMCO marketing efforts with MAAIF extension activities.

Spike tooth harrow: This is a "secondary" tillage implement ("primary" tillage being done with a plough). It is used to break down and even-out soil clods after primary tillage to leave the seedbed ready for seeding or planting. It is also used in the preparation of wetland rice fields, performing an additional task of levelling.

Dam scoop: This animal drawn scoop may be used in a wide range of soil moving operations for agricultural or rural development activities. It eases the excavation and short distance transport of earth during the construction of bunds, roads, dams, etc.

Hammer mills: These are made in various sizes according to an engine capacity in the range of 15 to 40 hp. The mills carry a rotor with blades (hammers) fixed to the periphery which impact the grain or agricultural product, shattering it and forming a flour. Products commonly milled in Uganda include maize, cassava chips which have already been sun-dried, simsim (sesame), millet, sorghum. Milling charges in the private sector depend on the product and are fixed by local authorities. There are normally three charge ranges: cassava chips, dried sweet potato chips (lowest); millet or sorghum (perhaps sesame too?) (medium charge and perhaps double); millet and sorghum (highest charge and perhaps triple). One should note that charges are on a volume basis, not weight (basins or other locally acceptable measurement receptacles).

Fig. 2 The SAIMMCO hammer mill installed near Soroti

It is worthy to note here that mechanical milling is now practised throughout Uganda and the manual method using the mortar and pestle (so common still in West Africa) is virtually discontinued. Village mills are common, hence the important market potential for the SAIMMCO model. Mill efficiency could prove an important marketing aspect to highlight in the SAIMMCO model.

Groundnut sheller and roaster The sheller is manually operated by a swinging pendulum action. The groundnut shells containing the grain are crushed against the screen by the pendulum and the grain is thus separated. The equipment does not provide any cleaning action and this must later be done either manually or with another type of "cleaning" machine - uncommonly used in Uganda. The roaster was not inspected by the Mission but is used to roast the shelled groundnuts.

Light engineering services: These services are very diverse and have already been adequately described above in Section **B.1.4.3** and **B.1.4.4**.

2.2.3 Identification of and impact on beneficiaries

2.2.3.1 Identification of beneficiaries

The imprecise identification of beneficiaries identified in the original PRODOCs has already been remarked upon in **Section B.1.2.2** above. For the purposes of this Section, discussion will be focused upon the following major groups of beneficiaries:

- Primary producers (farmers)
- Regional agro-industrial enterprises
- Clients for light engineering services

2.2.3.2 Primary producers (farmers)

One must first place in perspective the size of the market reached by SAIMMCO during the first 16 months of the implementation phase of the project. This has certainly only been modest when compared with projections outlined in the PRODOCs and the Inception Report. Production over the 12 month period from 1 August 1995 to 31 July 1996 included the following agricultural equipment:

	August '95 to July 96
Ploughs	332
Ploughs (not assembled)	135
Carts	14
Hammer mills	11
Toolbars, harrows and dam scoops	30

It has already been observed that the use of animal drawn carts in Uganda is relatively low (see **Section B.2.2.2**). Sales of the SAIMMCO cart perhaps reflect this tendency and one must conclude that impact of the locally produced cart has been minimal to date.

In contrast, **Appendix 14** highlights a national inventory of perhaps 147,000 animal drawn ploughs in 1992. The plough constitutes the basic animal drawn implement used in Ugandan agriculture and its price and quality can form the ready basis for debate in most rural communities of the region. Certainly, one should not compare SAIMMCO sales figures with the estimated national inventory - such an estimate should only be done in comparison with the present market. Unfortunately this market size has not been reliably quantified in any references made known to the Evaluation Mission and most probably can only be subjectively analysed. The present market situation is further described above (**Section B.1.6.1** and **B.1.6.2**) and it remains to comment that:

> ***The Evaluation Mission observed that the volume of sales of animal drawn equipment over the first 16 months of SAIMMCO production were well below***

projected targets outlined during the project planning phases. Impact thus remains minimal to date although future prospects could become significant.

2.2.3.3 Regional agro-industrial enterprises

Sales of SAIMMCO products in this sector have been encouraging. A number of aid organisations and NGO's have placed specialist orders and significant work has been undertaken concerning light engineering tasks involved in the rehabilitation of ginneries. Specific beneficiaries in this context are more fully described in **Sections 2.2.3.4** and **.5** below.

2.2.3.4 Clients for light engineering services

Soroti, being a regional centre and one in which various development agencies have their local offices for direction of their regional development programmes, is now developing into a centre where light engineering services are in high demand. SAIMMCO constitutes the unique regional source for high quality engineering inputs required by these rural development projects. Whereas light engineering services were originally predicted to represent some 25 % of plant revenues, they are currently running at some 33 %.

On the one hand, this indicates the importance of the original concept and design of SAIMMCO as a flexible production unit. It also reflects the low market share so far achieved in the agricultural implement production sector.

2.2.3.5 Impact achieved through aid agencies and NGO's

Noting the relative importance of the various SAIMMCO trading activities as briefly described above and recalling the importance attached in the SAIMMCO marketing strategy to outlets for agricultural implement sales through aid agencies and NGO's, the following notes are attached concerning the Evaluation Mission's observations concerning these clients:

Aid Agencies and NGO's operating in Uganda

Following the end of insurgency in the North and Eastern parts of the country, a large number of Aid Agencies have flocked to the region to give a helping hand to the rural populations. The main area of their involvement is in various agricultural activities, often involving acquisition of agricultural equipment and draft animals for farmers on loan or grant arrangements. The Mission was only able to meet the undermentioned aid agencies and NGO's located either in or near to Soroti. They did, however, constitute major clients of SAIMMCO and observations concerning the impact of company products will be described in greater detail below.

It should be remarked as an introduction, that considerable enthusiasm was expressed concerning the quality of SAIMMCO products. Furthermore, the importance of such a manufacturing and service facility existing in this region was stressed by all parties concerned. Product costs were not mentioned nor were they commented upon during these discussions.

Fig. 3 Interviewing veterans in the field, beneficiaries of SAIMMCO ploughs offered through World Learning in Kumi District.

Specific notes regarding agencies contacted during the Evaluation Mission's field visits:

World Learning

Funded by USAID and responsible for the resettlement of over 4,000 demobilised soldiers (veterans) in Kumi, Soroti, Lira and Pallisa districts. Major activities are in the agricultural sector. In 1996 alone, a number of oxen were purchased from the open market and a total of 100 ox-ploughs and weeders were purchased from SAIMMCO for distribution to veteran groups based on the "matching grant approach". A similar number of equipment are envisaged for purchase this year (1996/97). The NGO also is planning to request SAIMMCO to produce several units of a manually operated cassava chipper (developed at Namalere Agricultural Engineering Research Institute) for field testing with their veteran groups.

Soroti Catholic Diocesan Developmental Organisation, SOCADIDO

This is a church organisation involved in assisting farmers through loans to facilitate the purchase of oxen and ox-ploughs based on the "matching the loan approach".

Dutch Rural Development Projects in Soroti and in Lira

This bi-lateral aid organisation is currently funding two different development projects, one in Soroti and the other in Lira with development budget costs of some 7 and 6 million US$ respectively over a five year period. Most of their activities are in the area of agricultural development and include the provision of loans for the acquisition of both animal draft equipment and oxen to recognised groups of farmers.

The Teso Presidential Commission

This was put in place by His Excellency the President of Uganda, as a body of indigenous Iteso, charged with the task of finding an end to the insurgency in Teso and there-after resettling the population displaced during the war. They are heavily engaged in restocking programmes as well as in the provision of basic agricultural equipment to resettled persons. Their main source of equipment is SAIMMCO.

Appropriate Technology International, U-Press

This is partially funded by DANIDA and aims to popularise the use of a smallholder manually operated press for the oilseed crops. SAIMMCO has assisted this NGO but sales are so far limited.

2.2.4 Impact on land use and farmer livelihood

It has been indicated above (**Section A.1.1**) that of the 17 million ha of land classified as "arable" in Uganda, only 4.6 million ha are currently cultivated. These are generalised figures but do indicate that Uganda is unique amongst many contrasting African countries in that the prime limitation to land exploitation lies in the ability to put available arable land into useful production. In other words, the total land area cultivated is more likely to lead be greater farmer income than overall crop productivity levels.

***Fig. 4** Young boys with two pairs of oxen opening up land in Kumi District.*

It is estimated that for opening up of one hectare of land using traditional hand tools in Uganda, this would require anywhere between 55-70 work-days of time, depending on the nature and condition of the land. This same job may be accomplished in 4-6 days using a single or

double pair of oxen, all depending on their size and health status. The land preparation calendar is time-dependant due to the need for coincidence of favourable climatic conditions, hence the limitation of land area which may be cultivated as related to available farm power (from human or animal resources - tractors not normally being available).

The importance accorded by the GoU towards encouraging a return to the use of animal draft power (in the traditional Northeastern regions) and towards its adoption in other areas of the country (particularly in the South West and Central regions) has already been described in **Section B.2.2.2** above. This is very positive regarding potential outlets for SAIMMCO products.

Section B.1.6.1 has already indicated that draft oxen population levels in Northeastern Uganda are expected to approach pre-1982 levels in the near future. If this is indeed the case, then adequate equipment will be required, amongst which SAIMMCO products should play a major role. The actual situation reveals a contrasting reality and few SAIMMCO plough and other animal drawn implements have been marketed during their first 16 months of production. This situation was already discussed above in **Section B.1.6.2.** It does, however, have implications for assessing the impact of SAIMMCO products in Northeastern Uganda.

> ***The Evaluation Mission concludes that, due to limited sales of agricultural implements, project impact on land use in Northeastern Uganda remains limited to date. The potential for a major impact however remains substantial and could eventually (in the medium term) influence the exploitation of arable land which presently remains uncultivated due partially to a lack of available farm power. It is noted that other constraints (instability) still exist in certain areas of the North and North East.***

Farmer livelihood results directly from the inputs and income from production achieved. The fore-going discussion should have clarified that the impact of SAIMMCO products, and hence the project has probably been limited to date.

> ***There remains, however, considerable potential for a measurable impact of SAIMMCO agricultural implement products to farmer livelihood in the medium to long term future, product quality supporting this opinion of the Mission.***

2.2.5 Additional "proxy" indicators of project impact

Renovations of the factory premises were only completed and handed over in February 1995. The Evaluation Mission therefore considers it too early for the factory to have had produced any measurable "proxy" indicators for income change amongst the end-users. Never-the-less, a number of positive non-agricultural contributions by the factory were observed which have produced indirect benefits in the local Soroti area. These include:

Renovation of ginneries:

SAIMMCO contributed to the renovation of the Odokomit ginnery in Lira District. Such contribution will indirectly assist the end-users of this facility. This intervention was financed with funds invested by GoU and the World Bank which are committed to development projects

directed towards the cotton industry (SCRP and CSDP). A total of 36 ginneries nation-wide are involved and the potential for SAIMMCO involvement and eventual end-user impact remain substantial.

It is opportune here to mention other potential competitor workshops for this "renovation" and "rehabilitation" work for the ginneries. UGMA, located at Lugazi, is a workshop originally conceived for servicing the adjacent sugar-cane processing machinery in the Lugazi refinery. At least two similar, heavy and light engineering workshops exist and are operational in nearby Jinja. Soroti remains some 3 hours away by road - Jinja and Lugazi are not near to actual nor to potential cotton growing areas. The potential impact of SAIMMCO thus remains substantial.

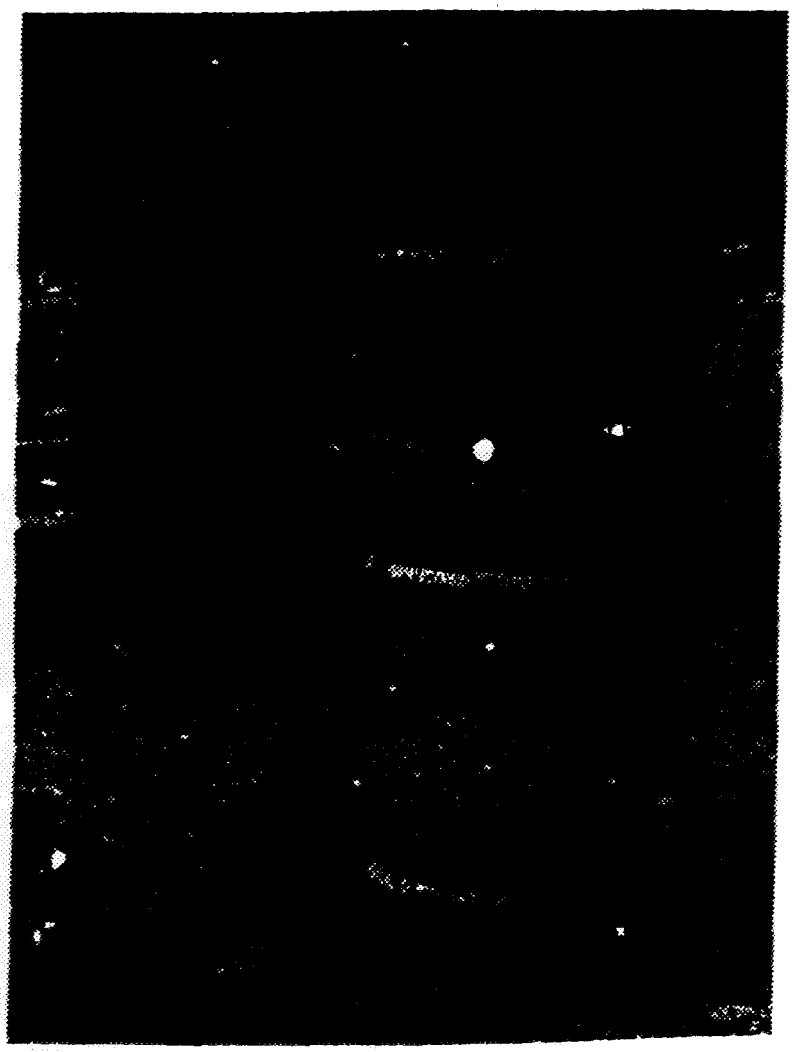


***Fig. 5** A mould manufactured by SAIMMCO for casting concrete road culverts (see in background)*

Non agricultural activities and services:

There is also the "knock-on" effect that has resulted from SAIMMCO's undertakings in non-agricultural services in Soroti, such as the fabrication of a water tank for the hospital, fabrication of culvert moulds and man-hole covers for road construction, etc., for which engineering services would otherwise have been difficult to acquire in the area. The factory is also supplying typing and desk-top publishing facilities, as well as water deliveries to some water deficit areas of the town. Most of these services carry an essentially social benefit to the community, the more economic aspects being absorbed within the financing costs of each individual project.

The Evaluation Mission recognises that an impact of a social rather than an economic nature has been achieved within Soroti town through some of the non-agricultural engineering service activities. This is judged to lie within the terms of mandate concerning the objectives for UNCDF funded projects.

2.2.6 Marketing impact of SAIMMCO products

SAIMMCO, after its rehabilitation, has only effectively been operating for about 16 months, and the proposed Marketing Strategy presented in the 7th Progress Report in July 1996 has not yet been fully implemented.

Detailed aspects of this marketing strategy have already been fully analysed above in **Section B.1.6.2** and it remains to summarise the main conclusions regarding the impact of this strategy.

The Mission believes that the marketing of SAIMMCO products could be improved considerably, both towards the various aid-agencies, NGO's and the agro processing industries as well as through the Government and its agricultural extension services.

It was observed by the team, that there still need to be improved links established between SAIMMCO and the Government extension services and also with MAGRIC and its existing marketing network.

Fig. 6 Mrs Teddy Ocung of Madera Village, Soroti District, a proud owner of a SAIMMCO plough

2.2.7 Project impact on women and children

Women are the main contributors to agricultural production in Uganda, providing more that 75% of the required farm labour. They contribute the labour for clearing and opening up of the land and for planting and sowing. Due to lack of appropriate tools and equipment, the work of rural women has become time-consuming, tedious and less productive. Working

conditions are extremely difficult especially for working mothers and school-going-age children. In addition, the domestic processing of agricultural outputs - particularly maize, millet and cassava flours, groundnut shelling, etc. - are also difficult, wasteful and sometimes unhygienic with ill effects on health. Therefore, provision of appropriate agricultural implements and simple processing and storage equipment, such as currently manufactured by SAIMMCO, will contribute towards improving the quality of rural life for the women of Uganda.

During the survey by the Mission in several districts in the Eastern Region of Uganda, women involvement and participation in using some of the improved equipment from SAIMMCO as a means of improving their livelihood, has been remarkable. Instead of using the traditional hand-hoe to open-up land, women actively participate in the use of animal drawn technology to assist and increase their productivity. In the absence of their male folk, women alone or with family workers or children can yoke the oxen, lead them to the field and effectively carry out the necessary farm operations: ploughing, weeding, transporting agricultural produce, water and fire-wood. The example in question of Mrs Teddy Ocung of Madera Village in Soroti District (see **Fig.6**), who is not only happy but also proud using oxen to improve her farm labour and productivity.

***Fig. 7** Some of the members of the Bukedea Women's Struggles Association (Kumi District) who have already acquired 120 ploughs and who plan to purchase more in the near future.*

In Bukedea County in Kumi District, a group of 840 women, (28 in each of the 30 parishes of the county), formed themselves into the "Bukedea Women's Struggles Association". based on the use of animal traction for farm production (**Fig.7**). Using seed moneys from an American NGO (African Development Foundation), the group was able to acquire 480 oxen and 120 ploughs for their project. Most of the members have had formal training on the use and care

of the animals and equipment and are among the biggest admirers of the SAIMMCO technology They also own an Indian made oil-press mill. The group has an Agricultural Researcher a Advisor and operates a successful loan scheme which they are using to expand their activitie:

Traditionally in Uganda, women are the ones responsible for the milling and grinding o maize, millet, sorghum and cassava for the household. The UNIDO *"Milling and Marketir Study in Selected areas of Uganda", p.8,* (Odogola et. al, see Appendix to 2nd Progress Repc of UGA/80/C06 and UGA/86/015), established that to prepare 100 kilograms of the traditior composite flour of cassava/millet/sorghum at a ratio of (2:1:1) would take an average housewi a total of 35-42 woman-hours, a rather tedious and labour intensive activity. Traditional milli of the product would contribute 25-30% of the time. An area where SAIMMCO has contribu to relieving labour on rural women is through the provision of efficient hammer mills which c be used both in rural and urban areas of the country. Women are the main customers a beneficiaries of this technology.

Besides the women, children also positively participate in the use of animal trac technology for which SAIMMCO has a contribution (see **Fig.4**).

Besides the above contributions of SAIMMCO's products to relieving the workloac women and children, the factory also employs a number of ladies especially in the Admini tion section. There is in fact also already one trained certificate holder in Fitter Machinist V employed with the factory, and competing very favourably with the men folk.

The Evaluation Mission notes a positive impact of the project on the rural life of women and children which although only limited to date due to the low sales of SAIMMCO products, will be progressively more noticeable as the distribution of company products expands.

3 PROJECT PREPARATION AND DESIGN

3.1 Initial project design as related to the needs assessment

The importance of the use of draft animal power in North-eastern Uganda has already been fully described in Section A.1.1. Although a factory had been established in the late 1960's in Soroti, producing both ploughs and animal drawn carts, this fell into a state of disrepair and production virtually stopped during the 1980's. When the first requests were received to renovate the premises, a number of studies were undertaken by UNCDF and UNIDO in order to decide how best to re-initiate workshop production and above all, to determine the potential market for the agricultural equipment which it was proposed to manufacture.

Estimates of the market for ploughs, carts and hammer mills were eventually incorporated into the project documents and suitable production equipment proposed for supply to the workshop. The equipment selected was such as to permit a flexible and diverse production programme.

Fig. 8 Mr Esalotier Eduku, a blacksmith from Katine Sub-County with some of his very rudimentary equipment

It is not known how the market level was estimated but certainly the situation in Uganda has altered radically since the project was first suggested. Firstly there was a vast reduction in draft oxen available within North and Northeastern Uganda. Secondly there were important emergency importations of ploughs, carts and hammer mills which, although of poor quality, tended to saturate the market immediately prior to starting implementation of the project. Thirdly there is an important cross-border trade with Kenya and significant direct importations made by the private sector. And finally there is a limited production of equipment by the rural artisans which seems to have been completely ignored.

Indeed, the rural blacksmiths and small scale workshops seem never to have been referred to in any project documentation made available to the Evaluation Mission.

Early experience of project implementation indicates that the market for the basic range of agricultural equipment is presently far less than originally predicted. It is even, to date, much less than the revised "grosso modo" estimates made by UNCDF in 1991 and during the more detailed UNCDF review mission of 1994.

The project design is somewhat unusual in that it combines objectives of a social nature with those which are purely economic, involving efforts to transform the plant into a fully profitable enterprise which may eventually be successfully sold to the private sector. Although there are ample justifications for both approaches, conflicts of interest must inevitably occur and it is difficult, perhaps even impossible, to fully accomplish both sets of objectives.

From a social point of view, one sees every justification for locating the plant at Soroti in the midst of the rural population targeted by the workshop. One sees the justification for equipping the plant as well as possible and so as to enable it to undertake diversified production activities and to have the capacity to accommodate large scale orders as and when necessary.

From a strictly financial point of view, many of these aspects become more questionable. One might consider that the workshop is over-equipped, hence carrying insupportably high equipment depreciation costs in the accounting system. This is particularly acute at the present time when most of the equipment is new and hence suffers the highest depreciation cost of all (despite the fact that maintenance costs are now at their lowest level).

From a financial point of view, the Government should certainly sell the factory as soon as possible and before further depreciation in the value of the assets takes place.

The Evaluation Mission hold the firm view that additional technical support should be given to further raise levels of staff skills, to increase plant productivity and to give SAIMMCO a chance to capture the market. Three years of shop floor guidance were clearly intended in the original project design documents and were maintained in the TOR's concerning implementation by the sub-contractor.

There seems no reason to negate this commitment at this final stage of project implementation.

From a financial point of view, a potential buyer might be tempted to close the facility completely, ship the equipment to Kampala where supplies of raw materials and components are more readily available and to set up the workshop at this new central location. Such a move might be fully justified if a national market and the important aid agency market was then more likely to be fully exploited.

Such a move was certainly never the intention when UNCDF agreed to supply investment funds to re-establish the Soroti facility but the conflict of issues is acute on this point. One might

go even further in imagining that the potential buyer of the plant will, in fact, decide to sell off part of the machinery and equipment in order to offset investment costs and to re-establish a smaller but more cost-effective unit. From an economic point of view, this would appear to be a rational decision but would cause dismay to the original investment agencies.

So how realistic or idealistic was the original project design? Should multi-national organisations ever attempt to establish enterprises which might eventually be attractive for purchase by the private sector, turnkey projects designed to develop production units and marketable industries? The private sector, normally, has strictly economic reference points in mind when gauging the value of an asset.

As the privatisation process for SAIMMCO advances, the Evaluation Mission was very clearly briefed by both GoU and the multinational agencies involved that the social issues should, and indeed must, be considered during this process.

Does this present a possible avenue along which to guide the privatisation process? The conflicts of interest are vast and it is not clear whether this type of situation has been foreseen under the Ugandan laws governing the divestiture of public service utilities. The Evaluation Mission was given to understand by the Privatisation Unit that such distinctions had not been made in the past and that the divestiture of SAIMMCO might follow the model of a similar rice production project financed originally by the Chinese in Tororo District.

The divestiture process might even degenerate into a sequence of events involving: "place an advertisement in the newspaper; award the offer to the highest bidder; place the money in the Divestiture Account; pay off the staff; close the file upon completion of this successful divestiture". Such a situation would probably be most unacceptable to the donor agencies involved in establishing and executing this project.

The question thus returns to whether or not, the original project design was "realistic", "idealistic" or perhaps the opposite of either of these?

The Evaluation Mission fully supports the social intentions of UNCDF in funding the re-installation of a regionally based production facility for agricultural implements, equipped with a diversified range of machine tools which would also allow it to provide local light engineering service support to the surrounding rural areas.

In view of this stance by the Mission, how may the privatisation issue be best addressed? It is noted that a Privatisation Consultant has been engaged with this specific duty in mind and no doubt his recommendations will be duly considered, once received. The conflicts of interest have been indicated above and, perhaps, a solution must be sought through a "special case" divestiture procedure for SAIMMCO.

Considering that the two share holders in SAIMMCO stock are currently the MAAIF and the Ministry of Finance, the Mission holds the view that a suitable compromise solution could be found if this is actively encouraged. The current interest and criticism of the national press

noticed by the Evaluation Mission concerning the divestiture of other public utilities during their visit, should serve as further encouragement for these concerned parties to analyse this case with particular respect concerning the opinions of each of the partners involved in the project.

The Evaluation Mission concludes that the overall project design was not realistic from a commercial point of view. It was, however, realistic in recognising a more social justification for the re-establishment of the workshop in Soroti. In order to ensure that this aim continues to be maintained over the medium to long term, it is suggested that suitable arrangements and conditions be applied during the privatisation process.

And finally, the issue of the concept of the "loan" arrangement described in the PRODOCs should again be mentioned (see also **Section B.1.6.3.2**). Although total funds invested in SAIMMCO by UNCDF amount to some USh 1,877 million according to the June 30 1996 Financial Report, in fact the reimbursement total will now depend upon the present asset valuation of the company. This amount will almost certainly be much less the the original investment but treated in this manner, the money should, in theory at least, become immediately available for reimbursement once the company is privatised.

This change in events was not (indeed could not have been) foreseen in the original project design but the solution suggested will serve to preserve the philosophy of the original project objectives.

3.2 Assessment of the technical design of the plant and its equipment

The physical design of the workshop has already been discussed in **Section B.1.6.4** above. It was noted that restrictions were placed on the reconstruction of the workshop layout and that certain walls and rooms were to be maintained from the original factory construction. This in fact lead both to higher construction costs and to certain inconveniences which only became fully apparent upon completion of the building. In retrospect, it might well have been better to have given a completely free hand to the sub-contractor to re-arrange the layout and redesign the structure according to the final production requirements as outlined in the TOR's of the implementation sub-contractor. Designers of development projects are unlikely also to be good civil engineers and thus such an approach might have been more sensible - final designs should, of course, have been subject to eventual approval by the funding and executing agencies.

The workshop equipment selection was also broadly outlined in the PRODOCs and reviewed during the preparation of the Inception Report. Equipment was selected according to the broad objectives outlined in the project agreements and was probably not determined in order to establish a profitable enterprise - one suspects that upper-most in the thinking behind the equipment list was the final aim to ensure that an adequate and diversified production of agricultural equipment and an appropriate supply of light engineering services.

This might hardly be surprising, as the concept of converting SAIMMCO into a unit suitable for privatisation only came about quite late during the preparatory and execution phases of project implementation. The PRODOC's describe in detail how shares would eventually be

purchased by the two GoU Ministries directly concerned - "privatisation" in today's meaning, was not even considered in the original project design.

And so again, a conflict of interests becomes apparent. On the one hand, to become more readily a "profitable" enterprise ready for privatisation, the workshop must be judged "over-equipped" and with a structure which has an excessive asset cost attached to it. From a project point of view, the building is adequate and the equipment sufficient to cover almost any eventual regional or even national production requirement.

A valuable "national" engineering asset has thus been established and in this, there is no doubt in the opinion of the Evaluation Mission.

The building in fact, constitutes an excellent example of this conflict of interest as stressed throughout this Section. A building to house a workshop for a profitable enterprise in the private sector should be i) cheap ii) functional iii) flexible. The SAIMMCO building has a large office area which is only partially used, as management staff spend at least half their time on the shop floor undertaking duties of on-the-job training.

- The Conference Room, although of potential use as such or for training purposes, has hardly ever been used. Conferences are not normally needed to "sell" products when a company does not have a Sales Department. It has been found more convenient to undertake training on the shop floor rather than in the "lecture room".

- The workshop interior is well illuminated, the work area now reasonably well ventilated (there were previous problems due to the low roof and building design dictated in the original plans), safety equipment and safety measures have been rigorously installed.

In contrast, a private sector workshop would incorporate few of these aspects (one need only peer into the interiors of the rustic and small workshops immediately adjoining SAIMMCO to see the potential differences).

And so how should one judge the design of this establishment? From a technical point of view, equipment selection has been judicious and even economic - spending was well under the budget allocation. The building itself has proved costly to transform into a functional structure but this it now is, today.

From an economic point of view and considering the imminent privatisation of the company, the workshop is probably over-equipped for the market which has currently been accessed. The building structure is grossly overvalued in the asset evaluation (still to be audited) - spending largely exceeded budgetary allowances. The workforce is skilled and well trained; however the purchaser will probably be under no obligation to retain the same staff. In summary, the amount of the original investment (as represented by the original UNCDF grant to the GoU) most probably far exceeds the market value of the establishment.

The Evaluation Mission concludes that the design of the plant and equipment has reasonably satisfied objectives as outlined in the original agreements.

Improvements could have been achieved in the building design, had more liberty been accorded to the sub-contractors bidding for implementation of the project.

The present market value of the machinery and equipment now only represents a "used" value which will be much less than the original sum invested.

Furthermore, the Mission observes a clear conflict of interest concerning "privatisation" of an engineering concern when the original project was destined towards "alleviation of poverty in the rural areas" and towards "technical assistance in the agricultural development sector". Whereas these objectives may be considered as having been achieved at the time of eventual project termination, the end results of the privatisation process remain in question. This will have an important effect on the eventual sustainability of the project interventions unless the additional considerations suggested below are adopted.

3.3 Assessment of the plans for cost recovery

The UNCDF and UNDP PRODOC's 1987 outlined a very optimistic production programme which later, was only slightly down-scaled during an in-depth study commissioned by the executing agency (GEMCO, 1990). The basis for these projections has not been ascertained by the Evaluation Mission and has already been commented upon in **Sections B.3.1 and B.3.2** above.

A subsequent field mission by UNCDF suggested a 50 % reduction in the projected production programme (Shotton, 1991). This later had an impact on the planned product mix and planned production programme and the proposals were eventually incorporated into the Terms of Reference of the "operations sub-contractor" - Hassall & Associates (see UNIDO, 1993). A further review mission in 1994 considered the project viable and activities were re-initiated immediately afterwards (Baerez and Odeke, 1994).

The revised production programme did have some implications on the investment input for the rehabilitation of the factory. According to the Project Agreement of 1987, a maximum total amounting to US$ 1,969,000 was to be made available to the Ministry of Agriculture. This was to be allocated for construction purposes (US$ 655,000), for equipment (US$ 693,000) and for the purchase of raw materials needed for a 12 month production period (US$ 621,000).

The total investment to date as recorded in the latest financial statements of SAIMMCO (30 June 1996 - see 7th Progress Report) totals a sum of US$ 1,707,080 *(1 US$ = 1,100 USh)*. This indicates an unused budget balance of US$ 261,920 (the actual figure is slightly lower, due to recent changes in the exchange rate).

The UNCDF report (Shotton, 1991) had suggested scaling down the equipment investment and the present asset value, at cost, is now US$ 496,290. This is leaves a balance of US$ 196,710 unspent on the original (1987) budget (Budget A).

However, the fixed asset value, at cost, of the civil works totalling US$ 884,450 is considerable higher than the initial budget and results in a negative balance of US$ 229,450. Around US$ 100,000 of these additional costs were directly attributed to the stoppage of investment activities as already described above in **Section B.1.1.1**. Over-spending is thus about US$ 130,000 in total.

The amount invested in raw materials will be the residual value of US$ 326,340 and represents an underspending of the original budget by US$ 294,660. The total investment thus represents less "raw materials" and "equipment", but far more "buildings" than originally foreseen.

The Evaluation Mission observes that, despite several changes having been made to projected production levels of SAIMMCO, the total amount of the original investment was only moderately reduced. In particular, building costs are high and raw materials investments are considerably under-budget. This has important implications concerning the amount of the original grant which will eventually be "recoverable" during the privatisation process.

The full implications concerning cost recovery possibilities will be discussed in greater detail in **Section B.4.2** below.

3.4 Assessment of the preparatory measures for privatization

3.4.1 Management and Administration

The Mission supports the present management style of SAIMMCO in terms of its direct involvement in all design and production activities as well as its ability to maintain good communication with the staff members.

The Mission supports the steps which SAIMMCO is taking to establish a fully computerized double-entry book-keeping system, together with stock control procedures which will enable the company to monitor and ensure timely ordering from suppliers according to production needs.

Owing to the resignation of the company accountant in March 1996, the financial statements have been prepared by the short term financial consultant for the period 1995-96. The company has not yet been successful in recruiting a suitable full-time replacement due to a lack of suitable local candidates for the post. Presently, the book keeping is maintained by the SAIMMCO book-keeper who is currently undergoing training concerning a computerized book-keeping system.

An alternative to employing a full-time company account would be to engage a company of accountants to prepare the books every 3 months. The Mission supports this management suggestion.

3.4.2 Training

The management of SAIMMCO remarks that the efficiency of workers is still relatively low which results in a negative effect on the unit production cost of company products. However, the Evaluation Mission appreciate the efforts already undertaken and planned for the future concerning on-the-job training. The Mission concurred in the opinion that this was the most effective form of training as demonstrated by the high quality of products produced by the company. Such training is particularly important considering the modern and efficient machine tools installed in the workshop and which would not normally be encountered elsewhere in Uganda.

The team believe that continuous on-the-job training of staff members to improve their skills levels will continue to add to the human asset value of the workshop during its preparation for future privatisation. The Mission was also pleased to learn that suitable in-depth skills-training courses had been identified in Uganda for shop floor staff - these seem to be highly appropriate for the company.

The Mission was not convinced that overseas training was necessary under the present circumstances. The Mission noted that the original budget for this item had been zero and perhaps it should revert to this figure. The Mission was not impressed by attempts to enrol company staff in correspondence courses and is pleased that these efforts could not be further pursued.

3.4.3 Plant facilities

The Evaluation Mission believes that the factory facilities regarding both the high quality of equipment installed, the factory building and the office facilities, more than satisfy the requirements for a regionally based engineering service unit. They are certainly more than would be expected by an interested investor from the private sector.

Investment costs might even be considered to have been exaggerated from an economic point of view and when considering the particular issues relating to future privatisation. These aspects have already been more fully discussed above in **Section B.3.2**.

3.4.4 Mission of the Privatisation Consultant

The Tri-partite Review Meeting of 3 October 1995 agreed that UNIDO should be requested to work out a strategy for privatisation of SAIMMCO in collaboration with the Privatisation Unit of the Ministry of Finance and Economic Planning. The short term consultant commenced with work in June 1996 and he indicated the main points which should be considered in elaboration of the privatisation strategy for SAIMMCO. The proposed schedule for the privatisation process was eventually modified and subsequently agreed upon during the Tri-partite Review Meeting of 15 October 1996. The privatisation schedule is reproduced below in **Appendix 17**. The final report of this mission is expected in the near future.

4 PROJECT RELEVANCE AND EFFECTIVENESS

4.1 Overall assessment of project objectives, outputs and achievements

As an assessment of project objectives, outputs and achievements has already been dealt with in detail in previous Sections, only a brief recapitulation of the main points covered will be indicated below.

i) The overall project design, in order to achieve the stated objectives, is analysed in detail in **Section B.3.1** and the two conflicting aims concerning the social and economic objectives are placed in contrast and suitably highlighted.

The Mission urges that those objectives of a more social nature should be particularly considered during the lead up to the privatisation process.

This observation has procedural implications concerning the Government divestiture policy as described in this same Section.

ii) The progress of the civil works is described in **Section B.1.1.1** and a temporary halt in activities took place over a period of 6 months. Performance of the sub-contractor appointed for the civil works is described in **Section B.1.3.2** where it is indicated that eventually the renovated buildings were only handed over after a total delay of 10 months.

These delays have had a negative effect on project achievements to date.

iii) A critical description of the SAIMMCO product range is described in **Section B.1.4** and training provided to SAIMMCO staff concerning the development and production of these products is described in **Section 3.4.2**.

Assessment of these project outputs was positive.

iv) An assessment of the plant's organisation and management was described in **Section B.1.6.4**.

This assessment of these achievements was positive.

v) The important effect of project outputs on the beneficiaries is fully analysed in **Section B.2**.

The impact on beneficiaries has so far been limited but is judged positive.

vi) The progress of restocking draft animals within the project region was described in **Section B.1.6.1** which also describes the effect on the market potential for SAIMMCO products.

It was noted that, although the restocking programme is now well advanced, other factors have influenced and indeed depressed the SAIMMCO market for animal drawn equipment.

vii) ***The project clearly complies with national development objectives of the Government as these relate to:***

- Modernisation of Agriculture (through the promotion of the use of draft animal power - see discussion in **Section B.2.2.2** describing the end use of plant products);

- Private Sector Development (as shown by the preparatory measures taken for privatisation described in **Section B.3.4** and the more detailed plans for cost recovery outlined in **Section B.4.2** below) It has already been noted in i) above, that in order to satisfy the more social objectives of the project, implications are noted concerning the precise divestiture procedure to be undertaken.

With this brief recall of the evaluation results, the remainder of this Section is devoted to analysing the important issue concerning the potential for cost recovery of the project's capital investment.

4.2 Assessment of the potential for cost recovery

4.2.1 Introduction

Both before and during project implementation, several revised scenarios were prepared so as to clarify the future viability of the factory. The latest projections of possible revenues and costs were presented in the 2nd Progress Report in January 1994, more than a year before the rehabilitated factory started production (April, 1995). These projections were generally in line with the results of the in depth UNCDF Mission prepared later (Baerez and Odeke, 1994).

None of these projections have proved to be in line with the initial performance of SAIMMCO where output, in terms of sales revenue over the last 16 months, is significantly lower than all these projections.

However, the Evaluation Mission realises that only a the relatively short period of operations is so far available for analysis (16 months).

During the Mission's visit to SAIMMCO, the future financial viability of the factory was discussed with management and a fresh set of revenue and cost projections were provided to the team (see graph of these projections in **Appendix 15**).

Based on these new projections, the Mission has analysed in depth, three major scenarios. These may be summarised as follows:

- **Scenario A**: Optimistic revenue projections with 2 options for the number of workers operating the plant;

- **Scenario B**: Moderate revenue projections with 2 options for the number of workers operating the plant;

- **Scenario C**: Pessimistic revenue projections with 2 options for the number of workers operating the plant;

The detailed analyses of these scenarios are attached in **Appendix 15**.

4.2.2 Introduction to the analysis

Firstly, the Profit/Loss Projections included in **Appendix 15** are based on the assumption that the question of the SAIMMCO "loan" be ignored as already fully explained and justified in **Section B.1.6.3.2** above. The debt repayment figures thus do not appear in the projections.

Secondly, the two separate calculations regarding the output of the company as related to the number of projected workers in the plan, requires further explanation. It was explained to the Mission, during their visit, that it was planned to expand the workforce in the near future so as to be able to satisfy the expected increase in production demand which should result from implementing the company policy of more actively marketing its products.

The two labour considerations adopted in the analysis follow management recommendations and are labelled **1)** and **2)** for which the description follows:

1) The present labour force is considered to remain static but through continuous training, will be able to achieve the increased productivity levels covered in the analysis;

2) The labour force is projected to increase over the coming year in order to satisfy the increased productivity levels required in the projections. Obviously, this will involve an increased labour charge as indicated in the representation of the scenarios.

4.2.3 Observations concerning the scenarios considered

The scenarios analysed in **Appendix 15** and as described above, provide the following observations concerning the projected Profit/Loss accounts of SAIMMCO:

Scenario A: Optimistic revenue projections

In **Scenario A:1**, the situation is considered when the number of factory workers remains at the present level and production levels are considered as optimistic - they are, however, at levels considerably lower than those predicted in the latest review mission undertaken in 1994 by Baerez and Odeke (see the graph of comparative projected revenues in **Appendix 15**).

This scenario indicates that profitability will be achieved during the 3rd year of production (in the year 1997/1998) and that losses incurred in the early years of production will be amply offset by profits during Year 5 (1990-2000).

It is doubtful that these optimistically high production levels could be achieved with the present labour force. Increasing the labour force to meet these optimistic production levels (**Scenario A:2**) means that profitability can still be achieved during Year 3 and all losses also paid off during the 5th year of production (1990-2000).

As these optimistic revenue projections are unlikely to be achieved in practice, it seems more realistic to consider the moderate projections included in the following scenario "**B**":

Scenario B: Moderate revenue projections

When assuming the more moderate projections in **Scenario B:1** and **B:2**, the projected profitability indicates the following:

(i) If the workforce remains at the same level as today, losses incurred in the early years of production will be eventually offset by profits during Year 5 (1990-2000).

(ii) By increasing the workforce in Year 2, losses will occur until Year 3 (1997-98) and will only be offset by eventual profits accumulated up to Year 7 (2001-2002).

Scenario C: Pessimistic revenue projections

When assuming the pessimistic projections for company performance (Scenarios C:1 and C:2), the projected profitability of the factory indicates the following:

(i) The company will make a loss over the first 3 years of production if the workforce is maintained at the present level (**C:1**) - these losses will be eventually offset by the profits made up to Year 7 (2001-2002);

(ii) This scenario is troubling as if the labour force is increased to meet these low production levels, a marginal profit only appears during Year 4 and the losses incurred during the early years of production will only be offset after 8 years of activity.

Consideration of the above Profit/Loss Scenarios concerning SAIMMCO suggests the following commentaries by the Evaluation Mission:

The optimistic production and revenue projections are potentially attractive to an investor during the privatisation process, even if it is found necessary to increase the number of workers on the shop floor (Scenarios A:1 and A:2); these projections are still attractive for the moderate revenues projected in Scenario B:1 where the workforce remains at present day levels. They become much less attractive for the remaining scenarios whereby the workforce is increased (Scenario B:2) or if factory revenues drop to the pessimistic levels indicated in the examples for Scenarios C:1 and C:2.

It should be noted that Profit/Loss Accounts only represent one aspect of the current situation and it is important to consider other financial indicators. Indeed, further analysis was requested by UNCDF during the final report preparation stage through an e-mail message

received during final preparation of the draft report. This request was, in fact, outside the original TOR's of the Mission but judged acceptable by the Team in order to reinforce the message of the present report (see the Footnote to **Appendix 1** concerning this amendment). The requested analysis is described below.

4.3 Evaluation of financial indicators

Appendix 15 also presents the schedule for the financial indicators for the three different **Scenarios A, B and C** already cited in **Section B.4.2** above. Based on these scenarios, two additional sub-scenarios have been introduced which consider lower values for the present net asset values for reasons which are explained in **Section B.3.2** above and **Section B.5.3.3** below. Comparative asset values of USh 1,518 million and USh 1,123 million have been included in the scenarios, for which the calculations are shown in the notes to **Appendix 15**.

The financial indicators shown in this analysis (**Appendix 15**) are as follows:

1) Net Present Value (NPV) - using a discount rate of 7 %

2) Internal Rate of Return (IRR) - the "investor's" or "project" point of view

3) Internal Rate of Return (IRRE1) - the "production manager's" point of view

4) Internal Rate of Return (IRRE2) - the "shareholders" point of view

5) Pay Back Period - the number of years to pay back the initial investment outlay

The NPVs have been calculated based on a cash flow not considering any debt service either due to the original PRODOC concept of a "loan" or due to the investor having to seek credit to acquire SAIMMCO. Should accounting eventually be made for debt service, the NPVs will be decreased due to a reduced value in the annual cash flows.

The calculations are based on a 15 year cash flow thereby assuming that the revenue and cost projections remain constant as from the 10th year of operation.

Attached in **Appendix 15** are further notes concerning interpretation of the financial indicators outlined above.

The financial indicators should not be used alone to determine the commercial viability of the project, however the different values calculated may be regarded as providing guidelines for a comparison between the different project scenarios illustrated in the Appendix 15.

4.4 Observations concerning the financial indicators

As can be seen from the 3 scenarios presented (Optimistic, **A**; Moderate **B**; and Pessimistic, **C**), the NPV's are positive for cases **A** and **B** and thereby commercially acceptable

They are negative and unacceptable for case C unless the initial asset value drops to USh 1.23 million (see "Comments to the Schedule" in **Appendix 15**).

The calculation has been based on a discount rate of 7 % considering a national interest rate level of 8-13 % and an inflation rate of around 6 %.

The IRR values calculated for the different scenarios range from 15 % down to only 5 %. These show that SAIMMCO can provide either a relatively attractive (15 %) or only a low return (5 %) compared to other investment opportunities.

The calculated values of IRRE1 and IRRE2 are different to those of the IRR due to the use of other cash flows, plus the introduction of additional equity capital as explained in the notes supplied in **Appendix 15** for the interpretation of the financial indicators.

The Pay Back Periods for the various possibilities analysed vary from 6 to 13 years and in the different cases indicate either relatively or excessively long periods for repayment of the initial investment outlay, all depending upon the different scenarios considered.

When calculating the some of these financial indicators, the project looks relatively attractive from the investors point of view.

> ***It is the opinion of the Mission that if a realistic market value of the present SAIMMCO assets be estimated at a level of USh 1,123 million (US$ 1 million) then for either Scenarios A or B, the company should prove reasobaly attractive during the eventual privatisation process. It is much less attractive for acquisition should eventual plant revenues only rise to the levels shown in the "pessimistic" forecast C.***

5 CRITICAL ISSUES

5.1 Ensuring profitability of the enterprise

The present project has permitted the re-establishment of an important support service industry in North Eastern Uganda, equipped to undertake a wide range of engineering construction and repair tasks. As such, it is unique in the region and its location in the centre of a major agricultural production area which traditionally uses draft animals, was chosen to be accessible both to the farmers and the local agro-processing industries. Production to date has also highlighted a market for engineering services in sectors other than agricultural development, principally rural and urban development programmes.

During initial project design and the final preparations for project execution, difficulty and uncertainty were encountered in predicting the possible future market for plant products. Although originally conceived to produce important quantities of draft animal equipment, spare parts and hammer mills, the first year of plant production has revealed that this market is still weak. A number of reasons have been highlighted for this situation (see **Section B.1.6**) amongst which perhaps the most important is the feeble purchasing power of individual farmers.

A number of aid organisations and NGO's are striving to redress this situation, providing partial grants and credits to recognised farmer groups, so allowing them more ready access to agricultural equipment. It seems likely in the near future that this potential market for SAIMMCO products will become increasingly more important.

Whilst this aspect of the market for plant services has proved disappointing to date, the market for engineering services has been more dynamic and close to the predictions made during the latest UNCDF review mission in 1994. However, these specialist services rely heavily upon the technical expertise within the company which has been notably improved through intensive on-the-job training but will only have received a total of 21 months of technical assistance on the shop floor by the time the project terminates on 31 January 1997 (36 months were originally planned for this vital training component).

The long term objective of the project is to ensure that a profitable enterprise is established. This clearly relies heavily upon an effective marketing strategy and this has been discussed in detail in **Section B.1.6.2**. The strategy proposed by the Marketing Consultant is attached in **Appendix 16**. It is the view of the Evaluation Mission that profitability will also rely on effectively marketing the engineering services of the company and for this reason, the Mission considers that additional technical assistance for on-the-job training is essential before staff will be fully equipped to tackle this type of work independently. An additional marketing consultancy input is also suggested before project termination in order to follow-up and fine-tune the strategy already proposed.

> ***Thus, from this point of view, the Mission considers that a modest additional project input of technical assistance will have a significant effect upon the final results of the project.***

5.2 Achieving maximum economic benefit

Unfortunately, following the measures indicated in **Section 5.1** above is not compatible with achieving maximum economic benefit from the project. It will be recalled that privatisation only became part of the overall strategy of the project quite late in the day. The original intention was merely to achieve profitability and for the GoU to purchase appropriate numbers of shares when this was the case. The situation now and as project termination approaches, is quite different and the aspiration is to sell the enterprise to the private sector.

With this end in view, there is a clear conflict of interest. As has already been explained above in **Section B.3.1**, maximum economic benefit from the privatisation process will be obtained by selling the enterprise as soon as possible and before the assets suffer any additional depreciation in value. This will then yield maximum funds for the Divestiture Fund.

> ***This is clearly the most critical issue to be resolved at the present time and the Evaluation Mission maintains its stance, as supported by the evidence presented throughout this report, that it would be more logical to strive to attain profitability at the expense of maximum economic benefit.***

With these points in mind, various considerations relating to the privatisation strategy will now be analysed in greater detail.

5.3 Consideration of the options for industrial privatization strategies

5.3.1 Introduction

There are several characteristics of the present privatisation plans for SAIMMCO which should be noted and duly considered:

1) SAIMMCO is still at a relatively early operational stage, not yet having reached a "normal" production situation;
2) SAIMMCO has, for the last 16 months, experienced low sales figures and has not been able to generate any profits;
3) Projected sales figures seem to be very dependant on an increased marketing effort and on a recovery in the local and national economy;
4) SAIMMCO is currently facing a large outstanding debt (according to the Project Agreements) which makes it difficult to generate future financial reserves;
5) SAIMMCO has recently been rehabilitated and the high quality of the machinery and equipment installed, together with adequate buildings implies that there will be no need for further restructuring or re-equipping of the factory in the medium future.

With these characteristics in mind, the following issues should be considered in the light of privatisation.

5.3.2 Methods and issues concerning Privatisation

There exist various options as to how the privatisation should be carried out and some of these are summarised below, the issues being highlighted with particular reference to the situation concerning SAIMMCO:

1) Public offering;

2) Private placement;

3) Level of Government ownership.

A fourth and "interim" option preferred by the Evaluation Mission will be described in more detail below in **Section B.5.4** and concerns postponing the privatisation process temporarily, so permitting the workshop to be firmly established as a profitable organisation as originally conceived in the PRODOCs. The iterim measures suggested involve either a Lease or preferably, a Management Contract Agreement.

5.3.2.1 Public offering

In general, Public offering requires that:

(i) the company be a sizeable going concern with a reasonable earnings record or potential;

(ii) a complete dossier of financial, management and other information is available;

(iii) there is discernible liquidity in the local market; and

(iv) either the equity markets are developed or there is some structured mechanism to reach and attract the general investing public.

The main advantages of public offerings are that they permit widespread shareholding, allow the broader resources of the general investing public to be targeted, and are normally characterized by openness and transparency.

Where widespread share ownership is desired, public offering should be the preferred method for privatisation, however, the absence of financial markets in Uganda and the concentration of domestic private capital and technical expertise may not permit a public offering.

Presently, there are no appropriate financial market facilities in Uganda and hence no equity market in the sense of a public stock exchange. However, consideration regarding such facilities in Uganda has been going on for the last year, and national economic indicators such as the rate of inflation (6-7%) and the level of interest rates (8-13 %) are favourable conditions.

Without strong equity markets, public offerings will not generate much response unless mechanisms are devised that allow the general investing public to be reached.

In a public offering, the net worth of the company will be taken as a reference value, but may not be determinant since the public as an investor is principally interested in the earnings value of the shares and in possible capital gains. Public offering does not appear to be a viable alternative in the case of the privatisation of SAIMMCO.

In contrast, when a private placement is envisaged, the net worth of the company may become a preponderant element. This will be described below.

5.3.2.2 Private placement

In a private placement, the Government sells all or part of its shareholding to a pre-identified single purchaser or group of investors. The transaction can take various forms such as through the direct acquisition by another corporate entity or a private placement targeting a specific group of investors.

The procedures for a private placement can be handled in a variety of ways and a common one is through a full competitive process involving pre-qualification of bidders and another is through direct negotiation with procedures for identifying potential buyers. When deciding whether to transfer ownership of the shares, the Government will look at the purchasing party's general business reputation and activities, financial strength, record of performance, etc.

> *A private placement is the preferred method in the SAIMMCO case as the company is presently showing "weak" performance and is in need of a strong owner(s) with relevant technical, financial, commercial and other experience.*

It may also be the only feasible alternative in the absence of a developed equities market and where no mechanism can be developed for reaching the general public.

One of the principal advantages of a private placement is that the prospective owner is known in advance and can be evaluated and, if appropriate, selected on the basis of his ability to contribute a number of benefits such as management expertise, technical expertise, market access, etc.

In addition, the private placement permits all the required flexibility to conclude special arrangements with a suitable purchaser, who, despite the present performance of SAIMMCO, might see that a special synergy exists (market share, technology for special manufacturing, etc.).

In the particular case of SAIMMCO, and with due respect to the original project objectives, it will also be important to ensure that the buyer acquiring SAIMMCO will not do so with a view to dismantling the workshop and to selling off the assets.

The private placement is also a much simpler process in terms of disclosure and other legal requirements, than is a public offering.

5.3.2.3 Level of Government ownership

The issue of the future Government participation in the management of SAIMMCO has still to be decided. However, the Evaluation Mission believe that it is the intention of the Privatization Unit to suggest a full privatisation of SAIMMCO without Government participation.

Often, a partial privatisation with continuing Government shareholdings and participation, is viewed unfavourably by private investors and in general, potential investors will not accept more than a relatively low and maximum level of Government shareholdings.

5.3.3 Pricing of SAIMMCO

Pricing a share issue is always a difficult matter of judgement, especially when the company's shares have not been traded before or where there are no directly comparable companies, such as is the case with SAIMMCO.

Several factors may affect the pricing and it is necessary to identify the existence and impact of these factors. One is potential market response, a key determinant being particularly the level of investor interest and the availability of financial resources. The profit record is another key determinant of the value of the company.

The practices such as using exact book values, assessing the net asset values, calculating the total investment representing the initial asset value, or discounting historical profits, are not usually adequate. Other more flexible methods such as discounted cash flow techniques are more appropriate since these are based on forecasts of future performance and expectations of future earnings and are better able to capture the variety of different factors that valuation should take into account. These factors include the fact that the value of machinery and buildings should take into account that this is now to be regarded as second hand with a considerable discount to the initital asset value. This implies that the "realistic" value will not be the same as the book net asset value.

5.4 Lease and Management Contracts

5.4.1 Introduction

A preferred interim measure recommended by the Evaluation Mission, consists of either a Lease or preferably, a Management Contract signed with an appropriate and interested Third Party (which could be a private investor, a bi-lateral aid agency or an NGO). The intricacies of such possible arrangements are described below:

5.4.2 Lease and Management Contracts

Both Leases and Management Contracts are arrangements whereby private sector management, technology and/or skills are provided under contract to state owned enterprises or in respect of state-owned assets for an agreed period and compensation.

Whilst there is normally no transfer of ownership and thereby no divestiture of state assets, these arrangements can be used to "privatise" management and operations and thereby possibly increase the efficiency and effective use of state assets.

Although sometimes regarded as an intermediate step towards full privatisation, leases and management contracts are more often used as temporary measures, for example, to return a state owned enterprise to an acceptable level of operational productivity and profitability.

Leases and management contracts are the principal methods of privatisation of an activity in situations where privatisation of the ownership of the assets is not appropriate as an immediate solution. However, both offer advantages which may in certain cases make their application preferable to other methods of privatisation. The lease may also be used as an intermediate solution aimed at making a subsequent sale possible. Similarly, the management contract may also be an intermediate solution in turning a company around for subsequent privatisation of ownership.

Unlike in a Lease situation, if a company is merely in need of a short-term injection of management and technical assistance to restore it to profitability, a Management Contract might be the appropriate alternative, and the principal issue will be the actual reliability, skills and seriousness of the Management Contractor.

5.4.3.1 Leasing Contracts

The private operator leases assets or facilities owned by the Government and uses them to conduct business on its own account. The Lease sets forth the terms and conditions under which the Lease may operate these assets and facilities, the compensation that must be paid to the state, and the respective responsibilities of the parties. The key feature of a Lease arrangement is that the Lessee assumes the full commercial risk for operating the assets. In addition to the Lease payment, the Lessee is normally obliged to maintain and repair the assets in use or to share in that cost in accordance with an agreed schedule.

Unlike the Management Contractor, which assumes no financial responsibility for the company's operations, the Lessee suffers direct financial repercussions if it fails to use the leased assets or facilities in an efficient manner and to ensure effective management.

Under a Lease, the Lessee hires its personnel. The Lessee may hire existing personnel and integrate them into its own work force, but in doing so would exercise complete freedom of choice. Under a Management Contract, the contractor may have wide powers over existing personnel, but they would still remain as employees of the company.

Another distinguishing feature of a Lease is that the Lessee has unfettered control over the operations of the assets or facilities, whilst the Management Contractor has only that control and authority specifically granted under the contract.

In leasing assets, the government/owner might relieve itself of immediate financial burdens but it has to build sufficient safeguards into the Lease to ensure that a viable asset base is returned at the end of the Lease. This problem does not exist with a Management Contract

because the asset owner is financially responsible for the upkeep of the assets during the contract period.

5.4.3.2 Management Contract

The Management Contractor assumes responsibility under a contract to manage the company for compensation. Unlike other arrangements providing for management services or technical assistance, the management group is given full management control and the authority to manage.

Whereas the Lessee pays the owner of the assets for the use of the facilities, a Management Contractor is paid by the government or by the company itself for its management and/or technical assistance. Whilst the contractor might be given extensive management powers and operational control, it has no financial exposure and receives its fee regardless of the profitability of the company.

The government and present owner of the company assets is not relieved of any financial burden and, in fact, takes on a higher short-term burden in the form of the management fee. The advantage of this arrangement is, however, that ownership is retained, a defined degree of control is maintained, and a high level of management and technical assistance is injected into the company, enhancing its overall efficiency and profitability.

5.4.3.3 Leases Procedures

There are no standard procedures for Lease arrangements, and they are therefore best discussed by reference to actual cases. The main underlying features are normally the conduct of the business by the Lessee, in its own name, the right to use specified facilities for a fixed period and the obligation to pay the owner a fee for use of the production facilities. Variables may include the level of financial contribution by the lessee, performance bonds, maintenance obligations, duration etc.

5.4.3.4 Management Contract Procedures

Several factors will influence the design and structuring of a Management Contract arrangement. A clear agreement must exist on the intended objectives of the management role and the degree of authority and control to be vested in the prospective manager. A Management Contract should include three main features:

1) charges for the provision of the management company's personnel in accordance with agreed formulae, including a small profit element,
2) agreement concerning reimbursable costs, and
3) incentive payments linked to profits, production or other appropriate formulae.

There are no standard terms for Management Contracts but if the management company makes no investment which it needs to recover over a longer duration, a contract covering 3 to five years is considered as normal, depending upon the scale and complexity of the project faced.

The Evaluation Mission suggest that a Management Contract will be the most appropriate solution for SAIMMCO as an intermediate step before the planned privatisation takes place. This will enable fulfilment of the technical and management assistance inputs as originally proposed in the Project agreements.

5.5 Sustainability and replicability of the project

The sustainability of the project will depend upon the eventual success concerning marketing the strategies adopted. This has already been referred to in **Section B.1.6** and **B.5.1**. The workshop cannot be judged sustainable until its future profitability is ensured and in the view of the Evaluation Mission, this also implies that the present net asset value should be revalued.

Sustainability will also depend heavily upon the results of the privatisation process and the manner in which this is eventually guided. The privatisation strategy has been analysed in **Section B.1.6.** and in greater detail in **Sections B.3.4** and **B.5.3**.

Sustainability of the project is more likely to be ensured, in the opinion of the Evaluation Mission, if a Management Contract is first arranged prior to privatisation.

The replicability of the project in the Ugandan context will also depend upon the eventual results of the privatisation process. The conflict of interests in achieving profitability, whilst also obtaining maximum economic benefit to the GoU from the privatisation process, have been described in detail in **Section B.3.1** and it is the opinion of the Evaluation Mission that these objectives may not both be accomplished simultaneously and with equal satisfaction. From this point of view, it is doubtful if the project should be judged as being "replicable" within the present economic and political climate of the country.

This negative observation must however be placed in context as the present report has attempted to highlight the many positive results achieved during project implementation. Indeed, the Evaluation Mission considers that the project has been very successful. The question of replicability will therefore be referred to again below in **Section 8**.

6. FINDINGS

6 FINDINGS

1) The Mission notes that there was a 10 month delay in the projected date for handover of the reconstructed workshop buildings which has resulted in a reduction of the time spent providing technical assistance on the shop floor from the 36 months foreseen in the PRODOCs to a total of only 21 months, calculated up until the normal project termination date of 31 January 1997.

2) The Mission notes the generally satisfactory performance by all the partners concerned in the project which overall, is felt to have been successful: UNCDF, UNDP, UNIDO, the GoU and the implementation contractor.

However, they consider that when doubts concerning the project's viability continued to be expressed, it would have been preferable to resolve this issue before implementation commenced. As this was not done, it would certainly have been preferable to maintain the implementation contractor fully informed of developments and to have given prior warning before the temporary stoppage of investment activities was decided upon.

In addition, it was noted that GoU participation could have been improved to the benefit of all parties concerned.

3) The Mission notes that it might have been possible to effect cost savings in the civil works had alternative designs and construction methods been adopted. The building eventually constructed was over-budget and has resulted in a higher level of the initial investment than might otherwise have resulted.

4) The Mission notes that the spending on both equipment and raw materials was under-budget. Savings on equipment spending are mainly attributed to the judicious choice of equipment and innovative renovation procedures undertaken by the implementation contractor.

5) The Mission recorded various imprecisions in the elaboration of the PRODOCs but recognises that project formulation procedures have undergone major changes since these documents were prepared.

6) The Mission notes that the situation of the rural artisans in the project area seems never to have been considered either at the project formulation or implementation stages.

7) The Mission observed that the SAIMMCO product range, although based on known and "traditional" designs for this region, has been subject to development modifications which has improved product reliability, quality, efficiency and ease of use. SAIMMCO products are well appreciated by those end-users interviewed during the mission.

8) The Mission noted that sales of agricultural implements by SAIMMCO to individual farmers have so far been disappointing but feels that overall demand will increase in the near future, strongly influenced by purchases through aid organisations and NGO's where product quality rather than price is generally considered of paramount importance.

9) The Mission supports the marketing strategy adopted by SAIMMCO but feels a more aggressive approach is needed to put it into effect. In particular, it was observed that improved links should be established between SAIMMCO and the Government extension services and also with MAGRIC (Uganda) Ltd and its existing marketing network.

10) Because of the importance of the market for SAIMMCO engineering services already experienced during the first 16 months of plant operation, the Mission judges it crucial that the company continues to develop its commercial relationships with the agro-processing industry.

11) The Mission noted the satisfactory organization and management of plant activities as demonstrated by the high quality of work undertaken. It noted however that much of the light engineering service work is still heavily dependant upon the technical expertise of the sub-contractor.

Although senior management style had been described as "unusual", it had certainly been effective in providing strong leadership and ensuring that both safety and work standards were maintained.

12) The Mission considers that further encouragement should be given to SAIMMCO staff to develop their own representational structure.

13) The Mission concludes that there has certainly been an impact of the project on the plant employees and their families and also on the surrounding community. Whilst this may only be judged very subjectively and beneficiaries may not even be aware of the benefits, the impact is certainly positive.

14) The impact to date on land use and farmer livelihood in the project region remains very limited due to the low level of agricultural implement sales so far achieved. The potential for major impact in the medium term remains substantial and could influence the exploitation of major parts of the arable land which presently remains uncultivated due to a lack of available farm power.

15) The Mission recognises that an impact of a social rather than an economic nature has been achieved in Soroti town through some of the non-agricultural engineering and service activities of SAIMMCO. This is judged to be within the terms of mandate of UNCDF funded projects.

16) The Mission notes a positive impact of the project on the rural life of women and children which, although limited to date, will become progressively more noticeable as the distribution of SAIMMCO products expands.

17) The Mission observes a conflict of interest between the more socially based objectives of locating the plant in Soroti and assisting it to become fully profitable and those of a strictly economic nature whereby privatisation should be sought as soon as possible in order to gain maximum value through the sale of plant assets and the company reputation.

The Mission supports the more social objectives and was clearly briefed by both the GoU and the funding agencies that this also concurred with their view.

18) Supporting efforts to more fully achieve these more socially based objectives and considering that only 21 months of shop floor technical assistance will have been provided up until the projected project termination date, the Mission holds the firm view that additional technical support should be given to further raise staff skills levels, to increase plant productivity and to give SAIMMCO a chance to more fully capture the potential market. This could conveniently be arranged by defining a Management Contract for an appropriate period and before the privatisation process is completed.

19) The Mission considers that the project design was realistic in adequately recognising the more socially based justification for the re-establishment of the workshop in Soroti. It was not realistic in expecting that this could be accomplished whilst simultaneously achieving the highest commercial price for the factory through the privatisation process, nor in realistically providing for this process. This is hardly surprising as full privatisation only became an objective well after the PRODOCs had already been signed.

In order to ensure that the more socially based objectives are maintained over the medium to long term, it is suggested that suitable arrangements and conditions be applied during the eventutal privatisation process.

20) The Mission notes that despite various modifications to projected production levels of SAIMMCO during project preparation and to the equipment and raw materials required to these ends, the total UNCDF investment as originally projected has only been moderately reduced.

The Mission also notes that the book value of the present asset value, in the light of privatisation, hardly reflects current assets: the civil works went over-budget and the equipment, although new, should now be considered as only second-hand. The current asset value is thus probably well below the present book value.

21) The Mission noted the originally projected production revenues forecast in the PRODOCs and considered the revised projections made by the 1994 UNCDF review mission. Based on discussions with project management and taking as a baseline, the figures obtained during the first year of full production, three further (and reduced) scenarios were

analysed in detail. In the Mission's view, these now represent the latest "optimistic", "moderate" and "pessimistic" revenue forecasts.

22) A total of 6 possibilities have been presented for consideration but the Mission has declined to draw any definitive conclusions. It does however observe that:

i) The optimistic revenue projections are potentially attractive to an investor during the privatisation process, even if it is found necessary to increase the number of workers on the shop floor (**Scenarios A:1** and **A:2**);

ii) these projections are still attractive for the moderate revenues projected in **Scenario B:1** where the workforce remains at present day levels;

iii) They become less attractive for the remaining scenarios whereby revenues are moderate and the workforce is increased (**Scenario B:2**) or if factory revenues drop to the pessimistic levels indicated in the examples for **Scenarios C:1** and **C:2**.

23) The Mission was requested to undertake an additional analysis concerning financial indicators. This analysis presents the results from a total of 9 possible scenarios. These highlight the following aspects.

i) If a realistic market value of the present SAIMMCO assets be estimated at a level of USh 1.123 million (US$ 1 million) then for either the Optimistic Scenario **A** or the Moderate Scenario **B**, the company should prove reasonably attractive during the eventual privatisation process.

ii) It is much less attractive for acquisition should eventual plant revenues only rise to the levels shown in the "pessimistic" forecast **C**.

7. RECOMMENDATIONS

7 RECOMMENDATIONS

Based on the findings indicated in **Section 6**, the Mission proposes that the following recommendations should be duly considered by the partners concerned:

1) The mission recommends that the more social aspects of the project design should take priority for accomplishment over those of a more economic nature and which are more directly concerned with the financial mechanism for privatisation. As such, the Mission proposes the following recommendations:

   i) That the projected 36 months of technical assistance on the shop floor as proposed in the Project Agreements should be accomplished to the degree possible. The Mission therefore recommends that the General Manager be maintained in post **at least** until January 1998 and **preferably** until April 1998.

   This additional input involves only a very moderate cost and should serve to further raise the level of staff skills, increase plant productivity and to further guide SAIMMCO towards capturing the potential market share which the Mission judges to exist.

   With such an input, the second and fourth immediate project objectives of "establishing improved capabilities in production management, repair, maintenance, quality control and design adaption" and "establishing a marketing mechanism including proper feedback into the production programme of the workshop" will be more fully accomplished.

   ii) It is recommended that this additional technical assistance could be conveniently arranged through a Management Contract and could possibly be funded by an interested donor.

   iii) That the privatisation process be postponed until after the termination of the Management Contract.

   iv) That the privatisation strategy to be eventually adopted in the case of SAIMMCO be carefully considered as a "special case" by Government authorities. It is noted that the mission of the Privatisation Consultant has not yet expired and the opportunity remains to incorporate some of the more social aspects related to the privatisation issue into the eventual procedure adopted. It is strongly recom-

mended that those GoU partners who have been most directly involved in project implementation to date, be also included in these deliberations.

2) It is recommended that a more aggressive marketing activity be undertaken. In this context, the following recommendations should be considered:

i) Whilst fully supporting the strategy which has been adopted by SAIMMCO, the Mission recommends that improved links be established between the company and Government extension services, particularly those of the MAAIF.

ii) It also recommends that links with the national distributor selected as a partner be reinforced and that a suitable and more extensive distribution of sales literature be ensured.

iii) It further recommends that the company continues to develop its commercial relationships with the agro-processing industry, particularly the cotton sector.

iv) It finally recommends that a third and final mission be organised for the Marketing Consultant to follow up previous work and to fine-tune the marketing strategy presently being put into operation by the company.

8. POLICY LESSONS LEARNT

8 POLICY LESSONS LEARNT

8.1 Privatisation and poverty alleviation

The present project has highlighted the difficulty of achieving success from both a social and strictly economic point of view. Perhaps this might have been averted if the full privatisation process which will eventually be enacted had been foreseen at the time of project formulation. As this was not the case, remedial measures have become necessary and form the subject of the first group of Recommendations outlined above.

The Mission has been requested (see their TOR's, **Appendix 1**) to balance the priorities of privatization and poverty reduction in UNCDF funded projects. The Mission hopes that a clear distinction has been made during the discussions presented in **Section B.3.1** where these conflicting issues were highlighted as they relate to the present project. The Mission clearly stated that the social issues should be fully considered during the privatisation process. It went on to comment that it fully supported the social intentions of UNCDF in funding the reconstruction of this important regionally based production facility in Soroti.

So why is there a conflict of interest? In the Mission's view, this originates from attempting to undertake a global "all cases to be included" privatisation process when in reality, each and every case most probably will merit special consideration. Such is the case of this project and such is the case of several other public utilities presently being privatised in Uganda and which are the subject of intense (and often highly critical) comment from the local press.

Clearly, it is not possible to consider each and every case of privatisation of a public utility before the process proceeds. However, there are several classes of utilities which most probably merit special attention. A "project" reconstructed multi-purpose workshop in a strategic agricultural development region must surely merit more than casual treatment. Had such a situation been envisaged at the time of project formulation, it is likely that a corresponding plan of action would have been prepared at that stage.

8.2 Socio-economic impact as related to the privatisation of a supply resource

The impact of the present project as observed during the mission has been positive from all aspects considered but limited due to the low market so far reached by SAIMMCO. Prospective socio-economic impact in the medium to long term is judged to be significant.

So what might happen after privatisation has taken place? One scenario discussed in the **Section B.3.1** suggested that under present rules concerning privatisation, it does not appear to

be an impossibility that the new owner might decide to dismantle all the equipment in the factory, sell off part of it, transport the rest to Kampala or Jinja, sell off the old Soroti premises and open up a new workshop for an engineering activity which might not even be related to the agricultural sector. It is not believed that any partner to the present Project Agreement could ever condone such an eventuality but one must ask the question as to whether this possibility has yet been excluded from the preparatory arrangements made for privatisation. The policy lesson which could usefully be learnt is that this is not the case so far and the Mission suggests that remedial measures be considered according to their Recommendation #1 (iv).

8.3 Privatisation and decentralization

Full support has already been described for maintaining the workshop facility in Soroti. As such, this permits local access to the important agricultural end-user (the farmer) and also the local agro-industries which are currently also being rehabilitated.

It has also been implied that during the process of privatisation, this "decentralization" aspect should be maintained and that any proposal to close and relocate the workshop should be impeded unless overwhelming justification for such an action is agreed upon by the partners to the project.

8.4 Specific lessons learnt

Perhaps one of the most crucial aspects which has been observed during implementation of the present project has been the apparent obsession of review missions with production figures related directly to the agricultural sector and more specifically, to the production of ox-cultivation equipment such as ox-ploughs and ox-carts, together with hammer mills.

In Section B.2.2.2, the small print explains that in today's Uganda, one no longer talks in terms of "ox-cultivation" as the use of donkeys for draft animals is being widely, actively and successfully promoted by the MAAIF. The SAIMMCO plough is totally unsuited for pulling by donkeys as it is far too heavy for them (45 kg). In contrast, the cart could be of potential extensive use. One only has to observe the donkeys pulling carts in many parts of West Africa carrying out refuse disposal tasks in the urban areas to recognise the eventual possibilities. Here would be a clear social benefit but one which would have nothing to do with agriculture. Donkeys are equally capable of pulling lightweight weeders (again, unfortunately the SAIMMCO model is too heavy for them) and are also used extensively for sowing groundnuts in Senegal.

None of these alternative suggestions could be put into practice in Uganda without intensive support from the agricultural extension services - the important point is that these possibilities should not be excluded by the continued use of inappropriate terminology which refers only to "oxen".

The manufacture of replacement spare parts for ploughs and carts also features highly in the reports of review missions. Yet it is just these types of spares which the rural artisan should be trained and encouraged to make to a high quality standard and assisted in the task by an enterprise such as SAIMMCO offering for sale the necessary high quality (boron steel) raw

materials. Lamentably, this aspect seems never to have been considered throughout the life of the project.

There seems to have been continual worry as to whether "other light engineering services" should be maintained at a level representing only 25 % of total project revenues. To the Mission, this would appear irrelevant as long as the workshop continues to satisfy the engineering needs of the project area.

So what is the specific lesson learnt? One must recognise that during project planning, it is essential to project future activities and revenues for enterprises such as SAIMMCO. However, it is suggested that various alternative scenarios should be presented, so providing at least some basis upon which to evaluate changing situations as indeed have affected this project to a particular extent. For instance, who would have predicted a massive emergency importation of ploughs, carts and mills, the very foundation stone of project projections contained in the PRODOC's. And yet, such an eventuality was completed over-looked.

Perhaps this constitutes a major lesson which could be learnt from the present experience. Projection tables, economic calculations and the basic logic behind project proposals should be subject to much closer scrutiny before implementation commences. One should avoid at all cost, temporarily halting operations when in full swing while further reflection takes place. In the present project, this action must have had a severe effect on the morale of project staff

8.5 Participatory planning

This topic is mentioned last of all as it is raised in the Mission's TOR's. It has already been adequately addressed in **Section B.2.1.3** where the strong management leadership was fully supported by the Mission. It was also mentioned amongst the Mission's "Findings" in **Section B.6.1** that further encouragement should be given to SAIMMCO staff to develop their own representational structure.

It is understood that participatory planning is practised during the formulation stage of all development projects although one might observe that the degree of participation is often variable. What one might comment under this section title is that perhaps a greater degree and more lengthy time could have been spent by some of the preparatory and review missions in the field, so as to enable them to undertake fuller and more participatory discussions and that this might have assisted in widening the breadth of projected workshop production figures beyond a single scenario approach. This could have assisted enormously in the eventual task of assessing project potential and actual progress.

APPENDICES

APPENDIX 1

TERMS OF REFERENCE

FINAL EVALUATION

APPENDIX 1

TERMS OF REFERENCE

FINAL EVALUATION

MANUFACTURE OF AGRICULTURAL TOOLS, IMPLEMENTS AND FARM MACHINERY

UGA/80/C06

PROJECT PROFILE

Country:	Uganda	**Total Project Cost:**	SUS 4,748,000
Full Project Nos:	UGA/80/C06 UGA/86/015	**Financing:** **UNCDF:** **UNDP:** **Government:**	 2,455,000 1,708,000 585,000
Project Title:	Manufacture of Agricultural Tools, Implements, and Farm Machinery	**UNCDF disbursements at time of Evaluation:**	2,222,441 (through y/e 1995)
Sector:	Industry	**Approval date:**	14/8 1987
Sub-sector:		**Starting Date:**	1993
Government Executing Agency:	Ministries of Agriculture & Finance	**Completion Date:**	anticipated January, 1997
United Nations Co-operating Agencies:	UNIDO UNDP	**Evaluation Date:**	17/10 1996

PART ONE: GENERAL FRAMEWORK OF THE EVALUATION

I. PROJECT BACKGROUND

The Ugandan Government (GoU) Revised Recovery Programme of the late 1980's placed special emphasis on rehabilitation of the agricultural sector. The Recovery Programme focused on projects in the agricultural sector with direct effect on the rehabilitation and restoration of the sector as a whole. Uganda's economy is heavily dependent on the agricultural sector, accounting for nearly all its export earnings.

Agricultural production in Uganda is characterized by small-holder mixed farming. The integration of crops and livestock leads to limited self-sufficiency and/or subsistence provided from food crops, milk and meat, and cash generated from sale of crops and livestock. The mixed farming systems with crop rotations and following periods have served to help maintain soil productivity.

The Soroti project to manufacture agricultural implements has had a long history. Early in 1980, the GoU had requested capital assistance from UNCDF to finance some equipment and imported raw materials for the manufacture of low-cost farms implements at the workshop in Soroti, which had originally been established in 1967 and which had received UNDP assistance during the 1970's. The plant received some UNIDO equipment in 1978, and a revised project document for rehabilitation of the Soroti facility was submitted by UNIDO and approved in principle by the GoU in 1980. In 1981, a UNCDF mission was fielded to Soroti, which recommended rehabilitating previous plant production functions. Local disturbances and uncertainty delayed the project through much of the decade, until an Agreement was signed between UNCDF and the GoU in 1987. However, the uncertainty and instability of local conditions continued to postpone the project, and the plant continued to deteriorate.

At the time the project agreement was signed in 1987, an estimated 80 % of farm families possessed only hand tools for tillage purposes, despite the once-preponderant reliance on draught animal ploughing. Because of the central role of small-holder farming to the agricultural sector of the economy, increasing the productivity of small-holding farmers was a Government priority. GoU plans took into account the direct relationship between ploughs through production at Soroti, and to re-establish ox stocks in the general project region; these stocks had been severely depleted, approaching near elimination in many areas, during the late 1980's as a result of cattle rustling on a massive scale. By the time the project was re-started in 1993, however, the region had become more generally peaceful, and the restocking of cattle had begun.

The plant serves the north-eastern area of Uganda, of which Soroti is the principal town. In 1990, the factory became a registered company with shares jointly held by the Ministries of Agriculture and Finance; its name was changed to SAIMMCO (U) Limited (Soroti Agricultural Implements and Machinery Manufacturing Company).

II. THE PROJECT

The main purpose of the project was to re-establish the Soroti plant as a manufacturer of low-cost implements for farming, such as ox ploughs, ox carts, hammer mills, and other products, regenerating SAIMMCO Ltd.'s capacity to manufacture agricultural machinery, implements, and spare parts, and to develop an engineering service capacity to cover regional demand for agro-industrial production, repair and maintenance facilities. This would be accomplished by assisting capabilities for design, manufacture, repair, maintenance and quality control. In addition, these would be a framework for coordinating the integration of products into the market and a marketing mechanism following on and feeding back into the manufacturing programme of the facility.

Because the workshop had fallen into such large disuse and disrepair that it could barely function, substantial reconstruction was planned. The central workshop and three residential outbuildings would be wholly or substantially rebuilt and would be fully equipped with industrial tools capable of manufacturing agricultural machinery, implements and spare parts.

Implementation of the project was to be carried out by an international contracting firm, under contract to UNIDO and financed with funds from UNCDF and UNDP. The Firm was to be responsible for all aspects of technical assistance, management and organization of the project including construction, equipment selection and delivery and for provision of raw materials. Backstopping and administrative services would be financed by UNDP with "backstopping" by UNIDO; UNDP/UNIDO would also provide assistance to the Government for general oversight and quality control of the contractor. A separate contractor would be hired for construction of the three pre-fabricated houses to be used by international personnel.

The project agreement, signed in 1987, states the following:

> project beneficiaries were estimated at "approximately 28,000 rural inhabitants of north-east Uganda during the first five years and 18,620 per year thereafter. In addition the workshop will provide employment for 91 workers and management personnel. The project will generate additional income to the rural population of over $3m per year at full production. The foreign exchange savings to the country is estimated at approximately US$ 230,000 per year during full production".

- **Project Objectives**

Development Objectives:

1. Increase agricultural output and productivity.
2. Encourage structural adjustments.
3. Save foreign exchange.

Immediate Objectives:

1. Expand the manufacture of agricultural machinery and implements and critical spare parts in accordance with Government policy and plans for agricultural development, including spare parts for agro-industrial machinery and equipment.

2. Establish improved engineering capacity for accelerated adoption, design, production technology and process planning capabilities; and in production management, repair, maintenance and quality control.

3. Establish a marketing mechanism including labor feedback into the production programme.

In addition to these explicit objectives and for the purpose of the final evaluation, the project shall be considered to have the following **implicit objectives** that will also be evaluated:

1. Improvement of small-hold farm production levels, livelihoods and land use practices in north-eastern Uganda;

2. Generation of direct employment in Soroti, including generation of employee management and administrative skills, and;

3. Privatization of the plant in a manner commensurate with the above "implicit project goals", as well as the defined Immediate Project Objectives.

III. PROJECT STATUS

Construction of the factory premises was substantially completed in January 1995; hand over (for management) of the facilities to Hassall and Associates took place in February 1995. All the workshop equipment has been installed and all the items have been tested and commissioned. All items are reported to be functioning at required specification, as laid down in the tender documents at the time of purchase. Overall, production output levels are reported to be in line with the projections given in the terms of reference for the contractor of 8 January 1993, despite the fact that large-scale production could not be started before April 1995. Outputs are ahead of those foreseen in the March 1994 report to UNCDF that had been used to justify the project's financial viability. Production has concentrated on the manufacture of the Sungura 2 plough, ox carts, a hammer mill and on improving quality/efficiency to reduce costs. Several new designs for implements have also been developed.

The project is expected to terminate operations by February 1997, by or at which time the GoU plans to have privatized SAIMMCO. Note that final project evaluation is requested by UNCDF prior to project termination in order that outstanding questions regarding privatization may still be addressed.

IV. PURPOSE OF THE EVALUATION

The purpose of the evaluation is to:

* Assess the project's impact on the livelihoods of end users of the implements as well as on the plant workers and their households;

* Assess the plans for privatization of the facility both in terms of plant viability and in terms of optimized impact on the identified beneficiaries; and to

* Evaluate the overall approach and performance of the project.

In order to accomplish this, the consultants will assess and evaluate the following:

* Design stage.
Assess and evaluate the original design and evolution of the project, identifying and analyzing the objectives, activities, resources, budget, etc. and evaluating project design in terms of soundness, realism, adequacy, consistency, etc.;

* Implementation stage.
Evaluate the implementation of the project in terms of the extent to which inputs, activities and outputs projected were achieved and key factors in attainment or shortcomings;

* Post-project stage.
Assess the actual and likely key future project performance and impact; and in particular evaluate the efficacy of privatization plans and the recommendations provided by UNIDO for the plant's privatization, upon review of the plant's management, administration, facilities and impact on project objectives and beneficiary populations to date.

Formulation of recommendations for UNCDF is a critical evaluation outcome; for this reason, the final project evaluation will occur several months prior to project termination in order that appropriate strategies or action plans may be developed.

V. EVALUATION METHODOLOGY

The evaluation team will undertake at least the following:

* Review the project files from formulation to the most recent dates, including UNCDF HQ and Field Office files, GoU files, those of UNIDO including progress reports, those of Hassall and Associates and any other relevant parties to the project;

* Briefings by all relevant personnel from GoU, UNCDF, UNDP, UNIDO.

VI ORGANIZATION, COMPOSITION & DURATION OF THE MISSION

The mission will be a joint evaluation involving UNCDF, UNDP and the GoU Ministries of Finance and of Agriculture. Priority will be given for not less than one final evaluation team member to be posted by a Ugandan national with appropriate experience for the mission TOR's secondary preference will be given to regional nationals. The team will be composed of three members. Composition, experience required, tasks and timeline are shown in the following table

Organization, Composition & Duration of Mission			
Mission member	**Required Experience**	**Key tasks**	**Time required**
* Agro-Engineer	Experience in farm tool manufacture; knowledge of draught animal technologies; extensive evaluation experience, including for UN agencies and in East Africa.	* Team Leader, draft and final report coordination/production * Evaluate selection, installation, maintenance of workshop items * Analyze/evaluate functions including spare parts, production flexibility * Labor efficiency, conditions and labor/ management skills levels * Identify/assess relative issues of privatization & socio-economic/other impact * Work with agronomist to identify localized impact in Soroti	* 2/2 days briefing/ debriefing at UNCDF HQ; 1 day debriefing at UNIDO HQ * 3 weeks field * 2 weeks report coordination & finalization
* Industries Analyst	Financial analysis; market analysis; business management, knowledge of privatization planning.	* Review of CDF local/national other party documentation * Assess factory performance * Analysis & recommendations for privatization plans, of management/labor capabilities and of economic multipliers	* 3 weeks field study * 1 week, report
* Agro-Economist technologist	Extensive area experience; familiarity with agro-technology issues; background in rural appraisal evaluation; knowledge of draught animal technologies.	* Assess socio-economic impact among rural user population, use and impact of tools on farm population particularly small-holders including on production income, practices and local market conditions for tools * Identify constraints to project strategy impact on farm population * Assess impact of project on technology dissemination, draught animal reintroduction and appropriateness of strategy to rural small-holders * Work with agro-engineer to identify assess Soroti impact & relative impact privatization issues	* 3 weeks field study * 1 week report

The Government will actively participate in the mission activities, putting at the tea disposal a representative qualified and experienced in the agro-industry sector and familiar w the Soroti facility and area; the Government and relevant Ministries will also provide full acce to all appropriate documentation, and may be called upon to facilitate field travel.

The UNDP Resident Representative's Office in Uganda will assist the mission and furni it with all available information on the project. The office will organize necessary meetings wi local authorities and will provide logistical and administrative support as needed and appropriat The local project office will provide access to other appropriate staff based upon a determinati of need, who will assist with scheduling and liaison matters as required.

The timing of the mission is planned in order to assure that the UNIDO report privatization of the Soroti plant has been finalized and its recommendations may be assessed f viability and efficacy, as well as from the viewpoint of the project's impact. This report expected by early September. The timing of the mission may be altered based upon t availability of the UNIDO report on privatization of the Soroti plant.

VI. REPORTING

The mission should discuss the main findings and preliminary recommendations with th UNDP Resident Representative, with Ministry of Finance and Ministry of Agriculture official and with any other concerned GoU officials and project partners. Time should be reserved a well for discussion of preliminary mission outputs with project beneficiaries, including among rural end-users. The mission is not empowered to make any commitments on behalf of UNCDF A draft report including a summary of findings should be submitted within two weeks o completing the field evaluation, allowing UNCDF HQ to review and comment prior to the debriefing of the evaluation mission and finalization of the evaluation report. The draft repor should be submitted in 5 copies, plus one electronic copy1/, to UNCDF to review and comment. Upon receipt of these comments, the team leader will finalize the report and prese 10 bound copies and 1 electronic copy of the final evaluation report to UNCDF.

The report should cover the elements presented in Part A-2 of the present TOR as we as any other points or information deemed relevant and important by the evaluators. The Government and the UNDP Resident Representative are expected to forward their comments o the evaluation report to UNCDF, based upon discussions with the evaluation team.

VII. MISSION COSTS & FINANCING

The cost of the mission will be debited to the UNCDF project budget. Final payment to the consultants will not be made until after acceptance of the mission's final report, with 50 of the agreed amount upon acceptance of the draft final evaluation report by UNCDF HQ. The consultants may claim requests for reimbursements; these must be accompanied by specific receipts and itemizations for costs incurred.

IX. APPROACH OF THE EVALUATION REPORT

The evaluation report should be organized in to sections, as contained in the attached "Detailed Terms of Reference" that follows:

1/ In WP51 or Microsoft Word 6 format for text, Excel for tables.

- Section A, parts 1 and 2, should be a record of the facts related to the project, with reflecting the author's opinions or assessments.

- Opinions and assessments of the authors should be included in Section B.

In addition to these sections, an "Evaluation Summary" is required to be includ following the provided format, an explanatory page of abbreviations and acronyms utilized the report is required, and other attachments such as maps and photographs are appreciated

In the evaluation report, the consultants are encouraged to raise subjects relevant to evaluation of the project, its organization, lessons learned, recommendations, etc. The Te Leader will be provided with the "UNCDF Evaluation Kit", containing key resources to follo the format required as well as providing current understanding of UNCDF's approach in ter of policy and project emphasis.

PART TWO: DETAILED TERMS OF REFERENCE

SECTION A: FACTUAL PRESENTATION OF THE INFORMATION NECESSAR FOR PROJECT EVALUATION

A.1. PRESENTATION OF THE PROJECT AS ORIGINALLY DESIGNED

Describe briefly the following:

(a) the country, region and sector, including a summary of the pre-projec situation in project area, some basic data including location, physical characteristics, the soc economic situation, such as employment, income, production level and major pertine facts and events that relate to the project since its inception, etc.;

(b) the major project components of the project's design, including its overall approach a project rationale;

(c) the project's development and its immediate objectives (noting the distinction betwee the project's stated objectives and the objectives as viewed for the purpose of the fin evaluation);

(d) project inputs, activities, expected outputs, implementation arrangements, costs financing, plan of operations and monitoring and evaluation plan. Including repor requirements, key performance or project success indicator development and monito etc.;

(e) risks identified at the design and or project appraisal stages.

A.2 PROJECT IMPLEMENTATION RESULTS

Regarding the implementation of the project the team should ascribe the facts that best describe the status of the project at the time of evaluation. Clear ascriptions of socio-economic impact may be listed in this section, to be explicated in analytical form in Section B. In addition, particular attention to the timeliness and efficiency of the delivery of all project inputs, including but not limited to financing, technical assistance, planning, physical inputs, activities, operations, etc.

These results can be presented in direct relation to the project's objectives; if required, the consultants may devise an alternative, appropriate system for the presentation of project outputs as attained to date. Under each objective or alternative category, pertinent data on all aspects of project activities - technical, institutional, financial, productive, market, quantifiable impact, etc. - should be considered. The issues should be addressed with factual reference to the methodological priorities in PART ONE-V and PART TWO-B1, as well as additional clear and attainable project implementation results deemed relevant by the consultants.

SECTION B: EVALUATORS ASSESSMENT OF RESULTS ACHIEVED

B.1 PROJECT IMPLEMENTATION RESULTS

Assess the project's implementation performance as compared to the original plans and identify and explain any differences between these. Analyze all project elements, from the procurement of inputs to delivery, quantity and utilization of outputs. In addition and specifically, the mission team should evaluate the following salient project features, as well as any additional features the mission determines useful to evaluation of the project's implementation:

* The delivery of each and all inputs specified in the project document, including by UNIDO, UNCDF, UNDP and the Government;
* The responsiveness and flexibility of each key actor and of the project's management to changing conditions of the project, and the effect on efficient implementation.
* The responsiveness and appropriateness of UNIDO in monitoring and backstopping the project, anticipating critical issues, and providing needed assistance and guidance.
* The responsiveness of UNCDF and UNDP in the provision of logistical and other support necessary for project implementation.
* Any external or originally unanticipated factors that had an effect on project implementation.

In addition, the consultants should specifically consider,

* Clarity, adequacy of activities, inputs, budgetary provisions, and time-tables;

* Whether beneficiaries and users of the project were identified and how these w originally determined and defined;

* Appropriateness of the institutional arrangements and efficacy of inter-institutio arrangements;

* The degree to which workplans were established and followed and whether th workplans were effectively design to directly achieve the outputs of the project;

* Significant changes occurring in any of the above points during the life of the projec

* Assessment and analysis of sub-contractors in terms of design, supervision construction; assessment of selection processes, and a review of the internal capaciti of firms contracted for the project;

* Analysis and evaluation of technical issues, including design and quality of output comparison to competing products, materials and manufacturing processes, pl equipment, layout and design;

* The planned and executed role of the GoU in project implementation and the delivery project agreement inputs, including a comparative assessment of the value of in-kin project support commitments and their actual delivery.

Regarding the overall potential of the plant and the outlook of its privatization plan, th consultants should, among key points they may identify, consider the following:

* Assessment of past, present and future market conditions for plant products, an competition and competitiveness issues and related factors such as imports, dono payments, tariff structures, inflation exchange rates, etc.;

* Assessment of the plant's marketing plan, and of the plant's responsiveness or flexibility in the face of market needs;

* Financial conditions and future conditions based on specific privatization plans, including capital cost/loan recovery;

* Analysis of internal organization, staffing administration and management of the plant;

* Cover all elements comprising PART TWO, A and PART TWO, B of the "Detailed Terms of Reference".

B.2 PROJECT IMPACT: SOCIO-ECONOMIC ANALYSIS

The consultants should assess how the project's achievements have modified pre-project conditions, to what extent and what ways project outcomes have affected the population or beneficiaries, and should compare results achieved to the pre-project situation.

This analytical section on impact will include, but not be limited to, the following areas:

* Impact of the plant on the local, regional or national economy, including but not limited to any changes in productivity resulting from manufacture and sale of spare parts, localized or broader economic multiplier effects, as well as impact on managerial capacity;

* The role of the project in the local, regional or national market, in terms of the current and future or anticipated conditions;

* The viability of plant under current conditions, and projections for viability under future conditions of privatization, management, loan repayment, investment recovery, etc.

* Further exploration and assessment of the plant's objective-related impacts based on but not limited to the points and questions covered in sections B.2.A and B.2.B. An explanation of this analytical section on project impact follows.

> ***The questions on project impact on key beneficiary populations should not be viewed by the mission team as either exhaustive or required in each case. They pertain to areas of impact in which the client has a specific interest, provide the Fund with the ability to make programmatic assessments by sector or thematic area, and should be considered as relevant to the question of privatization of the Soroti manufacturing facility. While a strong effort to provide the Fund with a sense of project impact in the below-listed areas is expected, it is also understood that not all questions of socio-economic impact provided may be reasonably answered on available data, or be considered essential to impact assessment by the mission consultants, at the same time, additional considerations of socio-economic impact may be determined by the consultants to be of particular interest to a project impact study, and should be included.***

B.2.a Localised impact of the Soroti Machinery and Tool Shop

1. The Soroti facility may employ enough workers to have significant localized impact, with direct impact multiplied by the household size of plant workers. UNCDF is interested in the impact of factory employment on the conditions and opportunities for the employees, their families, and the surrounding community.

* Provide the number of workers at the plant, their gender, positions, time employed a income levels, and the total estimated number of household members. If possib demonstrate the role of plant income in total household income.

* Assess, as determined, the primary areas of direct impact/improvement of livi conditions upon the effected households, for example: opportunities for childr.n, su as schooling, employment, health; ability to support family members such as the ag or the unemployed; significant changes in time and labor of spouses of facility worker etc.

* To what extent can the direct employment opportunities at the Soroti facility b considered a tool for poverty alleviation, and how?

2. Border effects of the plant on the surrounding community should also be briefl expressed, including but not limited to the following:

* Have there been any changes in community access to basic services that may b attributed to the plant, for example, changes in sanitation; in access to secondar employment related to the plant; changes in community mobilization efforts; etc. Overall can the factory be said to have contributed in terms of economic multiplier effects to th livelihood opportunities of the community, for example through food services, shops, too repair or maintenance facilities related to shop outputs, jobs for traders or in the transpor sector ...?

* Have there been other effects related to factory output on the broader rural economy, fo example in terms of production of spare parts that have improved local productivity, o other significant effects as determined?

3. In terms of management and labor, place the project within the context of UNCDF's policy on participation. In particular and in addition to the consultant's views and assessments report on the following:

* Explore and assess management - labor relations at the facility. Have there been significant labor grievances; how have these been resolved? How are questions of wages, hours benefits, safety and job security addressed? Are changes to current practices envisaged after privatization?

* Are the factory workers members of any formal or (observable) informal labor-interested structure, either within the confines of the facility or in a broader context?

* What are any constraints to UNCDF's participatory policy (as currently defined) or to participatory potential within the project's context? How might these, or should these have, been overcome? Was there an objective purpose for any specific participatory constraints within the context, objectives or strategy of the project?

B.2.b. End-use Impact of Farm Implement Production in Northeastern Uganda

Limited analysis, at best, has been done to date of the impact of the production of farm tools on the stated population of beneficiaries; small-holding farms of northeastern Uganda. The data available that may provide markers for estimation of changes in local socio-economic conditions may be scant. However, in good part through participatory evaluation methods, farmers views of project impact may be ascertained, and project impact deduced. Based upon mission team members' familiarity with the area and sector, these terms may be amended or adapted as appropriate to the mission's needs.

Where relevant, consideration of the impact of the farm implement plant's privatization should be considered - for example, on prices, supply, marketing, etc.

1. Describe the areas where the farm implements are used, and the populations that use them. What are changes in methods and levels of production for the farm tool users? How are these changes measured? Are they more or less significant for different crop producers, soil types, land configurations, or other local factors? To what extent are the implements affordable to farmers, and among which farmers in particular?

2. Identification of Beneficiaries.
To what extent can any income or productivity changes among the end users be desegregated among population groups (including men/women and by size or primary use of lands)? Describe who the end users are: which farmers can afford the implements? What do they cost, based on an average season's income? To what extent has the project considered plans to distribute access to project benefits, as through purchasing plans, loans, group plans, agricultural extensionists' involvement, etc?

3. Land use.
Have any changes in productivity led to changes in land use - for example, crops and cropping patterns? Land consolidation? Changes in farm labor practices? Any changes in agricultural intensification related to farm tool use? Does this have any effect on land productivity?

4. Farmer livelihood and costs.
Have income levels changed for the farm implement users? How are these changes measured? What are the links between productivity and income? Have there been any significant changes in the composition of agricultural incomes among the end users? Any change in non-farm relative income? Have any observable changes in crops raised or cropping patterns, or livestock to agriculture ratios, affected incomes? Has there been any change in the reliability of incomes among end users? Have there been any significant changes in yields? What link between yield and income? For what crops might yield change be most noteworthy, or among which end-user population? Has there been any change in oxen or draught animal prices and/or availability? If there have been any significant changes in yields, how has this affected the market prices?

5. Additional "proxy" indicators for income change among end users.
These may be identified based on local knowledge to enhance analysis of economic impact. For example, have there been any changes in the use/purchase of agricultural

inputs (relate to income change). Changes in cash transfers? Changes in land va..es land sales in areas of end-use, linked in any way to changes in productivity or .oc incomes?

6. Marketing of tools.
How effective is the marketing of the tools? Does the marketing meet needs? Is there a link between marketing and extension services, and/or between marketing and extensi providers? Who sells the implements, how are they purchased? Are these middle-m sales; what is the mark-up?

7. Women and the Project.
These questions may be consolidated from among various categories above. First, an women employed directly by the factory? Discuss and assess. Any ancillary/spillove economic activities for women generated by the factory's local economic role? What hav been the project benefits to women in farm families that purchase the tools? To wha extent are women end-users; are there products produced most suited to their needs, o can any market niches be identified? Has anytime saving accrued to women; has th s ha any effect on productive functions/labor patters, etc?

B.3 PROJECT PREPARATION AND DESIGN

Among the evaluation questions that relate to the preparation for and design of the projec that the consultants determine to be important to the project's final evaluation, the follow ng should be addressed:

* Initial design.
Assess the adequacy of initial information on the project area, sector, location, approach beneficiary population and needs identification, and the effect of each assessment on subsequent strategies of the project.

* Technical design.
Assess the quality and appropriateness of the plant design, its inputs, machinery, layout, safety, etc.

* Cost recovery.
Was, or how was, cost recovery of capital investments planned; were plans adequate or reasonable?

* Preparation for privatization.
Assess the degree to which the project has been prepared for privatization, in terms of management, administration, training, facilities, resources, etc.

* Training inputs.
To what extent did the project anticipate and provide the training necessary for project implementation and sustainability? What specific training products were included? reas down as appropriate for management and labor. To what extent were skill demonstrably absorbed?

- Identify and discuss additional project design issues as appropriate to the evaluation.

B.4 PROJECT RELEVANCE AND EFFECTIVENESS

- Outputs.
  Compare the achievements of the project to what was expected at the time of its formulation, and determine whether the project has been effective based on those merits. How well, and to what extent, were the project's objectives achieved? Were the objectives realistic? Were they consistent? Are they the best merits by which to assess success, or are there other important measures of success that should be considered?

- Assess the potential for recovery of the project's capital investment, the potential profitability of the plant with and without cost recovery assumptions, and for available options for cost recovery of capital investment within the context of specific privatization methodologies.

- Draught power.
  To what extent has the strategy for re-introduction of oxen to the project been successful, to what extent and in what ways has this had an effect on the project's market?

- Validity of project objectives.
  Assess the appropriateness of the project's development and immediate objectives, and the degree to which these may be anticipated to be fulfilled after the plant's privatization. Assess the capacity of the outputs achieved to meet the project's immediate objectives.

- National policy.
  Are the results attained consistent with national development objectives? Are there possible alternatives or improvements that could have been, or still may be, applied?

B.5 CRITICAL ISSUES

Based on the mission's findings, analyze particular features of the project that relate to the **sustainability** of the project and its overall impact. In particular, discuss and analyze issues that relate to the **replicability** of the project within the Ugandan context specifically, and as a UNCDF programme focus generally. An annotated list of the issues may be provided.

A key critical issue is an **assessment of the privatization strategy**. In addition to essential points that the evaluation team determines must be considered in any areas of the project's design, implementation, or approach, provide the following:

- Examine the legal conditions of the country as they relate to strategies, options, and support for privatization, and the relation of these conditions to the project's design.

- Based in part upon analysis of conditions in the factory and among the end-use population of small-hold farmers, assess the recommendations for privatization provided by UNIDO (and/or any other sources) providing analysis for potential impact ramifications and of any alternative recommendations to UNCDF.

- Discuss the implicit options in industrial privatization strategies (i.e. public or pr... stock offering, state share retention, etc.)

B.6 FINDINGS AND RECOMMENDATIONS

While the consultants are encouraged and specifically requested to provide all ke findings and recommendations as they pertained to both the successes and failures of the projec the findings and recommendations should also include an assessment of the following:

* Key factors and overall likelihood of the plant's privatization to be able to cov... ti capital inputs of the project;

* An overall assessment of the UNIDO report on privatization;

* Evaluators' views on the UNIDO recommendations for the plant, and any key findings and recommendations by the consultants that UNCDF should consider in light of these recommendations;

* Recommendations of likely changes in impact as a result of chosen method or options for plant privatization.

B.7 POLICY LESSONS LEARNED

The extraction of policy lessons help to improve design of other projects in the same sector or thematic area, and should place special emphasis on UNCDF policy goals. In addition to key lessons that the evaluation team would like to bring to the attention of UNCDF, please consider the following:

* Draw appropriate lessons that can help to balance priorities of privatization and poverty reduction in UNCDF project... related to the current case of an industrial facility producing farm implements for a market of small-hold farmers.

* Provide any key lessons that may help to weigh or to link strategic socio-economic impacts on target populati0on and the privatization of supply resources.

* Provide any relevant lessons regarding the relation between privatization and decentralization; in areas of participation and development strategy linkages (i.e. project links to national, local, or UNCDF goals and methodologies); and overall in the design and implementation of support to the privatization of agro-industrial inputs.

* What specific lessons can be learned in the project's immediate context in terms of rural development schemes; national strategies; Ugandan structural adjustment; labor policy etc?

* What lessons can be derived for improvement or relevance of participatory planning and implementation in similar projects, including for industrial assistance projects?

ADDITION TO TERMS OF REFERENCE

Via an e-mail message from the UNCDF Deputy Executive Secretary dated 16 November 1996, the following request was received:

> "...I want to stress to you that we are anxiously waiting to study the financial analysis component of the Evaluation Report ie. a clear Net Present Value analysis of this enterprise from the point of view of the prospective buyer (financial NPV) and possibly another one from the point of view of the economy. Maybe a ten-year analysis, with clear annual net cash flow indicated?"

These aspects have also been included in the report and the appropriate tables are shown in **Appendix 15**.

APPENDIX 2

ITINERARY

APPENDIX 2

ITINERARY

Tuesday, Oct 15, 1996		Departure from Quito, Ecuador (Team Leader)
Wednesday, October 16		Departure from Copenhagen, Denmark (Industrial Analyst) Arrival Entebbe (Team Leader and Industrial Analyst)
Thursday, Oct 17	(am)	Briefing with UNCDF Programme Officer Meeting with UNIDO HQ Backstopping Officer, UNIDO Programme Officer, Kampala and National Consultant (Agro-Economist/Technologist)
	(pm)	Meetings, in Kampala, with various "end-user" aid organizations and the SAIMMCO distributor, MAGRIC
Friday, Oct 18	(am)	Discussions with the FAO Representative and briefing with the UNDP Deputy Resident Representative
	(pm)	Discussion with the MAAIF Commissioner for Agr[illegible]re Encounters and discussions with the Commissioner for Crop Production, Officers from NARO and the Agricultural Officer (Animal Traction), MAAIF
Saturday, Oct 19 to Sunday, Oct 20		Review of documentation. Formulation of work plan for mission - ditto -
Monday, Oct 21	(am)	Discussions at the Ministry of Finance and Economic Planning and with the UNCDF and UNIDO Programme Officers
	(pm)	Discussion with the Privatization Unit, Ministry of Finance Discussion with the Uganda Manufacturer's Association (UMA)
Tuesday, Oct 22	(am)	Review of documentation
	(pm)	Kampala - Tororo. Contact with District Agricultural Office (Overnight in Tororo)
Wednesday, Oct 23	(am)	Visit to farmers and farmer groups in Tororo District
	(pm)	Tororo - Mbale. Visit MAGRIC Distributor in Mbale Mbale - Kumi District. Arrange visit programme for Saturday, 26 October Kumi - Soroti. Preliminary meeting with General Manager SAIMMCO Ltd and visit of factory installations (Overnight in Soroti)

Thursday, Oct 24	(am)	Discussions with General Manager (GM) and National Pro Director Discussions with Shop-floor staff during "tea-break" Discussion with Chief Production Engineer
	(pm)	Detailed discussions concerning plant installations with GM Visit to various NGOs and Projects in Soroti District (Overnight in Soroti)
Friday, Oct 25	(am)	Field visits to farmers, blacksmiths and mill operators in So District (2 separate Groups visited different farmers)
	(pm)	Discussions with Research and Development Engineer, Shop-fl staff (during "tea-break") and Chargehands Closed meeting by Evaluation Mission (evening) (Overnight in Soroti)
Saturday, Oct 26	(am)	Wrap-up meeting with GM and CPE, SAIMMCO Ltd Soroti - Kumi. Visit to various farmer groups and mill operat in Kumi District
	(pm)	Visit to Womens Association, Bukedea Kumi - Tororo Wrap-up meeting of Evaluation Mission (Overnight in Tororo)
Sunday, Oct 27	(am)	Tororo - Kampala
	(pm)	Preparation of draft evaluation report
Monday, Oct 28	(am)	Discussions with UNCDF and UNIDO Programme Officers
	(pm)	Preparation of draft evaluation report
Tuesday, Oct 29	(am)	Meeting with the Commissioner for Land Resources, MAAI Entebbe
	(pm)	Preparation of draft evaluation report
Wednesday, Oct 30		Preparation of draft evaluation report
Thursday, Oct 31		Preparation of draft evaluation report
Friday, November 1		Discussions with UNIDO and UNCDF Programme Officers Preparation of draft evaluation report
Saturday, Nov 2		Preparation of Executive Summary of Draft Evaluation Report
Sunday, Nov 3		Finalization of Executive Summary of Draft Evaluation Report
Monday, Nov 4		Submission of Executive Summary of Draft Evaluation Report copying & distribution to officials to be invited to the Wrap- Meeting of November 5th Continuation with preparing Evaluation Report

Tuesday, Nov 5	(am)	Continuation with preparing Evaluation Report
	(pm)	Wrap-up Meeting
Wednesday, Nov 6	(am)	Preparation of future work plan by Evaluation Team members
	(pm)	Final discussions of Evaluation Mission with UNCDF/UNDP
		Depart Entebbe (Team Leader & Industrial Analyst)
Thursday, Nov 7		Arrival at home base of Industrial Analyst (Copenhagen, Denmark)
		Arrival at home base of Team Leader (Quito, Ecuador)
Wednesday, Nov 13		Submission of the text modifications and new sections of the draft report by the National Consultant to UNCDF/UNDP, Kampala
Friday, Nov 15	-	Submission of text modifications by the Industrial Analyst directly by electronic mail to the Team Leader in Quito.
	-	Onward transmission by UNCDF, Kampala, of the text modifications and new sections of the draft report prepared by the National Consultant.
Monday, Nov 18 to Friday Nov 22		Discussions via electronic mail with team members
Monday, Nov 25		Completion of final draft version of Evaluation Report by the Team Leader
Tuesday, Nov 26		Despatch of the final draft version of the Evaluation Report by international courier service to UNCDF, New York
Monday, Dec 9 to Tuesday, Dec 10		Debriefing by Team Leader at UNCDF HQ, New York (to be confirmed)
Wednesday, Dec 11		Modification of draft Evaluation Report as required. End of Mission

APPENDIX 3

PERSONS MET

APPENDIX 3

PERSONS MET

(in chronological order of encounters)

Evaluation Mission (through UNCDF)

Peter Mallow, Industries Analyst
Wilfred Richard Odogola, Agro-economist/technologist
John Ashburner, Agro-engineer, Team Leader

Officers accompanying field visits to Soroti and surrounding areas and who contributed their views to the Evaluation Mission:

Henry Mbaguta, Senior Economist, Ministry of Finance
Frank Akena, Senior Agricultural Officer, Department of Land Resources, MAAIF

Kampala

Jessica Kitakule-Mukungu, Programme Officer, UNCDF, Kampala
Paul Tremmel, Programme Officer, UNIDO, Kampala
Enver F. Khan, Senior Industrial Development Officer, Engineering Group, Engineering and Industries Branch, Industrial Sectors and Environmental Division, UNIDO, Vienna
Andrew Pritchard, General Manager, SAIMMCO and Project Manager UGA 80/C06 and UGA 86/015
John B. Deas, Regional Manager - Africa and South Asia, Hassall & Associates Pty. Ltd. Canberra, Australia
John Magnay, Managing Director, MAGRIC (U) Ltd, Kampala
C. Van Vught, First Secretary, Royal Dutch Embassy, Kampala
William Salmond, Country Director, World Learning Inc., Kampala
Eliot Masters, Coordinator, COVOL Uganda (Cooperative Office for Voluntary Organizations of Uganda) The Shea Project, Lira
N.A.L. Lexander, FAO Representative, FAOR, Kampala
Abner N. Syambi, Programme Officer, FAOR
Colin Smith, Financial Consultant to SAIMMCO, Agrisystems (Overseas) Ltd., UK
Henry Mbaguta, Senior Economist, Ministry of Finance, Kampala
Aenas Chapinga Chuma, Deputy Resident Representative, UNDP, Kampala
David Taliwaku, Commissioner External Aid Coordination, Ministry of Planning and Economic Development
John Khabusi, Team Leader, Parastatal Monitoring Unit, Ministry of Finance (lamentably now deceased)
Kenneth Kataryeba, Information Officer, Uganda Manufacturer's Association (UMA)
Roger Shotton, UNCDF, New York
Maria Svensson, Country Officer, UNCDF, New York
George Taban, UNIDO Country Director for Kenya and Uganda, Nairobi

Entebbe

Japie O. Yafesi Omoding, Commissioner for Land Resources, Ministry of Agriculture Animal Industry and Fisheries (MAAIF), Entebbe
Mrs. Sarah N. Kiyingi, Commissioner for Crop Production and Marketing, MAAIF, Entebbe
Joel Wange, Agricultural Engineer, Serere Agricultural and Animal Research Institute (SAARI) Soroti
Samuel Okurut, Research Engineer, Agricultural Engineering and Appropriate Technology Research Institute (AEATRI), Namalere, National Agricultural Research Organization (NARO)
John Olupot, Agricultural Officer, Animal Traction, MAAIF, Entebbe
Emmanuel Kayaayo, Agricultural Mechanisation Officer, Animal Traction, MAAIF, Entebbe

Tororo

Joshua Nabulere, Acting District Agricultural Officer (DAO), Tororo District
Dominic Omodo-Ologe, Assistant Agricultural Officer (Animal Traction), Tororo District
Betty Hirya, Administrative Secretary, Office of the Resident District Commissionner (RDC) Tororo District
Farmer group (about 15 in total), Kaspodo Village, Kayoro Parish, Osukuru Sub-County Tororo District
Remigio Aluky, Contact Farmer for Animal Traction, Buteba Parish, Busia Sub-District, Buteb Sub-County, Tororo District
Okama, Amagoro Village, Mawero Parish, Buteba Sub-County, Tororo District (farmer)
Gabriel Alangai, Amago.o Village, Tororo District (farmer)

Mbale

Muhammad Aliga Ali, Agricultural Insurance Farm Supply Shop, Lock Up No 134, Mana Road, Mbale Town (MAGRIC Distributor)

Soroti

Andrew Pritchard, General Manager, SAIMMCO Ltd.
Cornellius Arsu, National Project Director, UGA 80/006 and UGA 86/015
Keith Elliot, Chief Production Engineer, SAIMMCO Ltd
Akorimo Deogracious, Research and Development Engineer, SAIMMCO Ltd
Otim Mike, Chargehand, Fitting and Machining Section, SAIMMCO Ltd
Olengor G., Chargehand, Blacksmithing and Welding Section, SAIMMCO Ltd
Sam Amuriat, Book-keeper, SAIMMCO Ltd
Shop Floor staff, SAIMMCO Ltd (almost all interviewed in small groups by one or other member of the Evaluation Mission)
Mrs Mary Teddy Ocung, Madera "B" Cell, Majejo "B", Soroti District (farmer)
Charles Aben, District Extension Coordinator, Soroti District
Faustino Anyumel, Field Extension Worker, Soroti District
Elias Egaru, Animal Traction Officer, Soroti District
Okello Elepu, Katine Sub-County, Soroti County (farmer)
Mrs Egonu Martha, Omarai Village, Katine Sub-County (farmer)

Esalotier Eduku, Katine, Katine Sub-County (blacksmith)
George Elibat, Arapai Sub-County (farmer)
Eboku Augustine, Assistant Manager, Agricultural Development Project (ADP), Soroti
John Kajoba, Project Manager, World Learning Inc., Soroti
Miss Liz Adippa, U-Press Project, Soroti
Father Mobiro, SOCADIDO, Soroti
Various personnel, Hands in Service, Soroti
Project Manager, ENEAGO (Road construction Programme), Soroti (client of SAIMMCO)
Mackay Elesu, Omodoi Village, Asuret Sub-County, Soroti County (farmer)
Mrs Elesu, Omodoi Village, Asuret Sub-County, Soroti County (farmer)
Stanley Omujal, Asuret Village, Asuret Sub-County, Soroti County (farmer)
Eriekesi Egau, Omoratok Village, Atiira Sub-County, Serere County (farmer)

Kumi

Valdo Odeke, District Agricultural Extension Coordinator, Kumi District
Silver Echaat, Assistant Agricultural Officer, Kumi District
Okeilo Nocklet, Chairman, Learn and Do, Kachaboi Veterans Association (farmer)
Olupo Alex, Chairman, Ongino Youth Farmers, Kachaboi Parish, Ongino Sub-County (farmer)
Mill operator, Ongino Leprosy Centre, Ongino Sub-County
Mrs Margaret Ilaborot, Chairperson, Bukedea Women's Struggles Association, Bukedea, Kumi District (potential client of SAIMMCO)
Mrs Florence Ekitur, Secretary, Bukedea Women's Struggles Association, Bukedea, Kumi District
Members (about 15), Bukedea Women's Struggles Association, Bukedea, Kumi District

APPENDIX 4

PRINCIPAL DOCUMENTATION CONSULTED

APPENDIX 4

PRINCIPAL DOCUMENTATION CONSULTED

UNCDF (1987) Project Document, UGA/80/C06, signed 14 August 1987

UNDP (1987) Project Document, UGA/86/015, signed 14 August 1987

GEMCO (1990) Preparatory Phase/Initial Study for the manufacture of agricultural tools, implements and farm machinery. Final Report. 30 January 1990 (Draft dated 25 August 1989)

Shotton, Roger (1991) Report of Technical Review Mission, May-June 1991. July 1991

J. de M.R. Belo (1992) Appraisal of project success probability, multipartite review meeting and evaluation of contract proposals. Mission from 16-20 November 1992. UNIDO Vienna, 4 December 1992 (includes Substantive appraisal of actual conditions for project successful implementation; Extracts from the May-August 1992 Quarterly Report [illegible] project "Field mechanization systems for production of sunflower and legumes"; Notes on Multipartite Meeting of 18 November 1992; Report on Joint Meeting for Evaluation of Contract Proposals of 19 November 1992

UNCDF (1993) Environmental Guidelines for the UNCDF Project Cycle. Report prepared by Environmental Resources Ltd (UK) for UNCDF. January 1993

Hassall & Associates (1993a) Project Inception Report. 31 March 1993

Hassall & Associates (1993b) First Progress Report. 31 July 1993

UNIDO (1993) Contract No. 92-185 between UNIDO and Hassall & Associates Pty Ltd (signed 16 July by Hassall and 7 August 1993 by UNIDO)

Hassall & Associates (1994a) Second Progress Report. 31 January 1994 (includes Building & Civil Works Tender Assessment Report and Report of Product Development - ploughs and mills)

Baerez, Hugues and Odeke, Ben (1994) Report on SAIMMCO, Soroti, Uganda. March 1994

Hassall & Associates (1994b) Third Progress Report. 31 July 1994 (includes Minutes and Site Report of 7 July 1994 and Report by Baerez and Odeke)

Hassall & Associates (1995a) Fourth Progress Report. 31 January 1995 (includes Minutes of Site Meeting of 29 December 1994 and TPR of 5th October 1994 and the Follow-up Meeting of 6 October 1994)

Hassall & Associates (1995b) Fifth Progress Report. 31 July 1995 (includes Procurement Rep
1 February 1993 to 31 July 1995 and Interim Marketing Report prepared by
Marketing Consultant))

UNCDF (1995) Poverty Reduction, Participation & Local Governance: The Role for UNCD
August, 1995. 51pp.

Seka Associates (1995) Building and Civil Works - Final Report. September 1995

Hassall & Associates (1996a) Sixth Progress Report. 31 January 1996 (includes compar
accounts 1994/95 and financial statement prepared by Financial Consultant. Revise
Work Programme and Minutes of TPR of 3 October 1995)

Hassall & Associates (1996b) Seventh Progress Report and Draft Final Report. 31 July 199
(includes company accounts 1995/96 and financial statement prepared by Financia
Consultant and Marketing Report prepared by Marketing Consultant)

APPENDIX 5

LIST OF INTERNATIONAL AND NATIONAL PROJECT STAFF

APPENDIX 5

LIST OF INTERNATIONAL AND NATIONAL PROJECT STAFF

Technical co-operation personnel

Internationally recruited professional project personnel

Post title	Name	Entry of duty	Departure (actual or estimated
Long term staff:			
Project Director	John Deas	July 1993	Contract completion
Project Manager	i) Stewart Barton ii) John Holthouse	February 1993 May 1994	May 1994 March 1995
General Manager	Andrew Pritchard	March 1995	January 1997 (but probably to be extended to June 1997)
Chief Production Engineer	i) Andrew Pritchard ii) Keith Elliot	August 1993 February 1995	February 1995 January 1997
Short term staff:			
Farm Machinery Marketing specialist	David Hopkins	8 March 1993	19 March 1993
R/D specialist	Lars-Ove Jonsson	8 March 1993 24 July 1993	19 March 1993 7 August 1993
Marketing consultant	Roger Limbrey	23 January 1995 9 March 1995	2 February 1995 27 March 1995
Financial consultant	Colin Smith	1 August 1995	3 weeks (non-continuous)
Privatization consultant	Colin Smith	1 June 1996	77 days (non-continuous

Technical co-operation personnel (cont.)

Nationally recruited professional project personnel

Post title	Name	Entry on duty	Departure
Ugandan ox-plough adviser for Project Inception Team	Alphonse Akou	8 March 1993	19 March 1993
Ox-mechanization specialist	Alphonse Akou	24 July 1993	7 August 1993

Government project personnel

Post title	Name	Entry on duty	Departure
National Project Director	Cornelius Aisu	January 1990*	On-going
Production Engineer	Gaudensius Opio	January 1990*	On-going
R&D Engineer	Deogratious Akorimo	November 1992	On-going
Company Accountant	Sam Ocholla	January 1994	Resign March 1995 but this is still not ratified by GoU

NOTE:

* *Date of establishment of SAMMCO as a Limited Company*

APPENDIX 6

LIST OF INVESTMENTS IN BUILDINGS AND EQUIPMENT

APPENDIX 6

LIST OF INVESTMENTS IN BUILDINGS AND EQUIPMENT

The following list has been taken from the Financial Statement as at 30 June 1996 and represents the calculation of the Loan Account with UNCDF

	TOTALS	US$	U Sh
Construction and buildings:		660,040	972,894,840
Plant and Machinery:			
Manufacturing		207,165	197,030,166
General utility tools		43,431	41,262,578
Tools for tool issuing room		44,833	42,591,255
Machines for tool room		45,793	43,475,040
Tin Smith		13,626	12,944,643
Paint Shop		13,747	13,061,225
Tools, dies and jigs			
Handling and internal transport		44,284	42,069,582
Miscellaneous equipment		119,566	113,847,063
Office equipment		41,721	39,638,823
Other			
SUB TOTAL		574,135	545,920,374
Raw materials:		376,099	358,971,715
GRAND TOTAL		**1,610,274**	**1,877,786,929**

APPENDIX 7

ORGANIGRAM OF SAIMMCO

06.03.29.9

SAIMMCO LTD ORGANIGRAM 1996/7

GM GENERAL MANAGER
NPD NATIONAL PRODUCTION DIRECTOR
CPI CHIEF PRODUCTION INSPECTOR
PI PRODUCTION INSPECTOR
R&D RESEARCH & DEVELOPMENT
S/K SENIOR STOREKEEPER
C/H CHARGEHAND

G.M

N.P.D

SECRETARY'S
SECURITY
MESSENGER'S
MEDICAL OFFICER

PRODUCTION DEPT
CPI & PI

ACCOUNTS DEPT
COMPANY ACCOUNTANT

R & D
R & D ENG

FOREMAN

ELECTRICAL
C/HAND 1

MACHINING
C/HAND 1

WELDING
C/HAND 1

ASSEMBLY
C/HAND 1

TRANSPORT
C/HAND 1

STORES
S/KEEPER

ACCOUNTS
CLERK

CRAFTSMEN
TRAINEES

STORES
STAFF

ACCOUNTS
STAFF

APPENDIX 8

SAIMMCO SERVICES AND PRODUCT BROCHURES

COMPANY CAPACITY

We have a full inventory of modern metal working tools and equipment such as:

Universal & Horizontal Milling Machines

5 Tonne Iron Worker Combined Punch & Shears

Power Bending Machines

Power Rolling Machines

Power Guillotine

Profile Gas Cutting Machine

Tool Grinding

Surface Grinding

Shaping Machines

Heat Treatment Ovens & Quenching Facilities

5 Tonne [illegible] Presses

General Arc & Gas Welding & Metal Spraying

Paint Spraying Plant

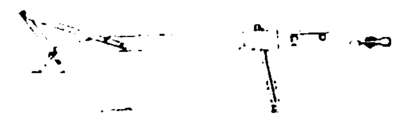
Power Saws

Drilling to 65 mm Boring to 555 mm

Company Rehabilitated by
[illegible]

SAIMMCO LTD
Soroti (U)

PO BOX 280
SOROTI



Manufacture of Agricultural Machinery & Implements

General Fabrication

Precision Machining

Rehabilitation of Worn Machinery & Plant

☎ 045-61363
Fax 045-61361
email gm@saimmco.uu.imul.com

COMPANY PROFILE

The Company was formed in 1990 and a full program of rehabilitation re-building and re-equipping was undertaken in 1993 jointly funded by the Govt. of Uganda and UNDP-UNCDF. The funding was on a strictly commercial basis in the form of a capital development loan of some 1.9 million dollars US repayable over the next 15 years.

At present the Company is wholly owned by GOU but it is the avowed intention to offer shares for sale on the Uganda Stock Market in the near future.

The Company commenced production of a wide range of agricultural implements and machinery in April 1995, the sale of which continue to increase rapidly. The company continues to develop these and other new products.

We also have an active client base for what we term "Service Work" that is repair and renovation of damaged and worn machinery & plant.

Examples:

- Tractor Ploughs
- Hammer Mills
- Water Pumps
- Grass Cutting Machines
- Tractor Trailers
- Water Tanks

We can also make fabrication of new items to customer order

COMPANY PRODUCT RANGE

"SEVGURA" OX-DRAWN PLOUGH (8")

TOOL BAR TILLAGE SYSTEM

RIDGERS & BANKERS

DIAMOND SPIKE TOOTH HARROW

OX DRAWN CARTS (3 SIZES)

HAMMER MILLS 15 - 40 HP

RICE HULLERS

HAND GROUND NUT SHELLERS

HAND GROUND NUT ROASTERS

GROUND NUT LIFTERS

MANUAL OIL PRESSES

WATER TANKS (2,000 - 12,000 Ltrs)

SPARE PARTS FOR ALL ABOVE RANGE AND ALSO FOR OTHER SUPPLIERS UNITS

SPECIAL WORK TO DRAWINGS OR IDEAS

COMPANY PRODUCT RANGE

"SUNGURA" OX-DRAWN PLOUGHS

TOOL BAR HITCH SYSTEM

RIDGERS & [illegible]

DIAMOND SPIKE TOOTH HARROW

OX DRAWN CARTS (3 SIZES)

HAMMER MILLS (5 - 40 HP)

RICE HULLERS

HAND GROUND NUT SHELLERS

HAND GROUND NUT ROASTERS

GROUND NUT LIFTERS

MANUAL OIL PRESSES

WATER TANKS (2,000 - 12,000 Ltrs)

SPARE PARTS FOR ALL ABOVE RANGE AND ALSO FOR OTHER SUPPLIERS [illegible]

SPECIAL WORK TO DRAWINGS OR IDEAS

SAIMMCO LTD (U)

Soroti

SUNGURA

8" MOULDBOARD OX PLOUGH

Brochure

PO BOX 280
SOROTI

☎ 045-61363
Fax 045 61361

SPECIFICATION

- Single furrow mouldboard plough
- Furrow width 20cm
- Under-beam clearance 45 cm
- Over-all length 180 cm
- Weight 38 kg
- Forged steel beam
- Share boron steel hardened
- Mouldboard General purpose boron steel
- Hitch plate adjustable horizontally and vertically
- Land wheel 14 cm diameter, adjustable height
- Handles 8mm rigidly braced with hollow, perforated grips
- Landside Hardened boron steel with cast or fabricated heel
- Accessories
  - -spanner
  - -plough chain
- Attachments (optional at extra cost)
  - -ridger body
  - -ground-nut lifter

CHARACTERISTICS

The SAIMMCO "Sungura" ox-plough is a robust implement, popular for many years with Ugandan farmers for its speed and ease of operation

The combination of a ***hardened, boron steel share*** and a ***boron steel mouldboard*** ensures maximum durability, even in abrasive soils, while the design of the mouldboard achieves effective soil inversion and good burial of surface trash and weeds

A hitch plate adjustable both horizontally and vertically makes the SAIMMCO "Sungura" ox-plough adaptable to draught animals of varying sizes for ploughing under a wide range of soil conditions At the same time, rigid construction ensures that all components remain properly aligned for maximum output and minimum draught

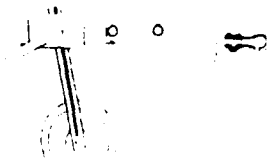
Braced steel plough handles are fitted with hollow, perforated hand grips for maximum operator comfort

Alternative bodies available for the SAIMMCO "Sungura" plough

-single furrow ridger
-single furrow ground-nut lifter

GUARANTEE

All implements and machines produced by SAIMMCO are guaranteed against defects in workmanship or materials for a period of one year (12 calendar months) from the date of entry into service This guarantee is limited to replacement, free of charge to the customer, of components returned to the factory which are found to be defective in material or workmanship



COMPANY PRODUCT RANGE

"SUNGURU" OX-DRAWN PLOUGH(S")

TOOL BAR TILLAGE SYSTEM

RIDGERS & BANKERS

DIAMOND SPIKE TOOTH HARROW

OX DRAWN CARTS (3 SIZES)

HAMMER MILLS 15 - 40 HP

RICE HULLERS

HAND GROUND NUT SHELLERS

HAND GROUND NUT ROASTERS

GROUND NUT LIFTERS

MANUAL OIL PRESSES

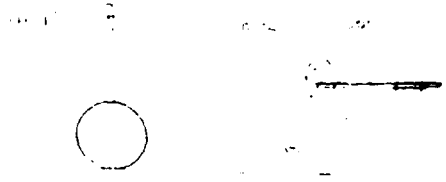
WATER TANKS (2,000 - 12,000 Ltrs)

SPARE PARTS FOR ALL ABOVE RANGE AND ALSO FOR OTHER SUPPLIERS UNITS

SPECIAL WORK TO DRAWINGS OR IDEAS

SAIMMCO LTD (U)

Soroti



TOOL BAR TILLAGE SYSTEM

Brochure

PO BOX 280
SOROTI

☎ 045-61363
Fax 045-61361.

SPECIFICATION

- Combination ox-plough, weeder and/or seeder
- Rectangular hollow section (RHS) steel box-beam plough frame with attachment for:
  - single furrow SAIMMCO "Sungura" 8" (20cm) plough body
  - single furrow ridger
  - single furrow ground-nut lifter
  - three tine cultivator/weeder with:
    - duck-feet [illegible]
    - chisel point
  - two row precision seeder/planter
- Under-beam clearance 17 cm
- Overall length 190 cm
- Weight [illegible] kg as plough or 41 kg as weeder
- [illegible] duck feet and chisel point: hardened boron steel
- Boron steel mouldboards (plough and ridger bodies)
- Standard three-bolt attachment point for bodies
- Land wheel 26 cm diameter [illegible] nylon bush [illegible]
- Single bolt land wheel adjustment
- [illegible] braced steel handle with hollow perforated hand grip

CHARACTERISTICS

The SAIMMCO Toolbar Tillage System combines all the well-known benefits of the SAIMMCO "Sungura" ox-plough with the ability to adapt the same plough [illegible] further uses such as:

- [illegible]ating
- [illegible]ing
- weeding
- seeding and planting
- harvesting ground nut

The toolbar [illegible] box beam of great strength [illegible] rectangular hollow steel sections (RHS) and has the same [illegible] all dimensions and shape as the SAIMMCO "Sungura" plough beam, thus permitting use of the popular "Sungura" ox-plough body.

For cultivating and weeding, the plough bottom is replaced with a three-tine arrangement fitted with duck-feet or chisel points, one attached to the plough beam at [illegible] and the other two carried on adjustable brackets in vee formation to [illegible]. [illegible] widths up to 75 cm can thus be accommodated.

For ridging and root-crop lifting, standard SAIMMCO ridger and lifter bodies may be fitted to the plough beam.

For seeding or planting, twin precision seeder units are fitted on a bracket across the [illegible] with ground-wheel drive being carried on both sides. Row widths of up to 75 cm can be accommodated.

GUARANTEE

All implements and machines produced by SAIMMCO are guaranteed against defects in workmanship or materials for a period of one year (12 calendar months) from the date of entry into service. This guarantee is limited to replacement, free of charge to the customer, of components returned to the factory which are found to be defective in material or workmanship.

COMPANY PRODUCT RANGE

"SINGLE" OX-DRAWN PLOUGHS

TOOL BAR HITCHING SYSTEM

RIDGERS & BANKERS

DIAMOND SPIKE TOOTH HARROW

OX DRAWN CARTS (3 SIZES)

HAMMER MILLS 15 - 40 HP

RICE HULLERS

HAND GROUND NUT SHELLERS

HAND GROUND NUT ROASTERS

GROUND NUT LIFTERS

MANUAL OIL PRESSES

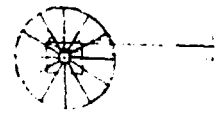
WATER TANKS (2,000 - 12,000 Ltrs)

SPARE PARTS FOR ALL ABOVE RANGE AND ALSO FOR OTHER SUPPLIERS UNITS

SPECIAL WORK TO DRAWINGS OR IDEAS

A UNIDO Project funded by UNDP/UNCDF/GOU

SAIMMCO LTD (U)
Soroti



OX CART

PO BOX 280
SOROTI

☎ 045-61363
Fax 045-61361

SPECIFICATION

Ox-drawn two-wheeled general purpose cart
Chassis: angle iron box structure carrying wheel axle bearings and draw-pole attachment
Steel wheels: 69 cm diameter, 10 cm wide, 12 spokes
Wheel rim: 5 cm wide with integral welded axle
Axles: [illegible] individual, 40 mm diameter steel pipe
Bearings: [illegible] oil-impregnated, replaceable wooden block
Draw-pole: [illegible] mm steel pipe, 1.8 m long
Body: steel box body with solid sides and hinged tailgate
Body dimensions: length 1.73 m; height 0.5m
Body capacity: [illegible] cu m
Overall length: 3.5 m
Overall width: 1.7 m
Ground clearance: 25 cm
Weight: [illegible] kg

CHARACTERISTICS

The SAIMMCO ox cart is a rigidly constructed welded steel box [illegible] on a central chassis to which are attached the [illegible] the wheel axle bearings.

Notable feature of the ox cart is the design of the high-strength [illegible] wheels with 50 mm wide rims attached by 12 splayed steel [illegible] 150 mm wide hubs, thus catering for rough conditions of farm and village tracks.

The wheels are welded to 1.6 m long steel tubular axle shafts which run in three pairs of 50 mm wide impregnated wooden-block bearings mounted 45 cm apart in the cross chassis. The weight of the load is thus carried evenly across the width of the cart on wide bearings which may be easily replaced when worn.

The tubular steel draw-pole is attached to the cross chassis in the centre of the cart, thus pulling from the load centre.

GUARANTEE

All implements and machines produced by SAIMMCO are guaranteed against defects in workmanship or materials for a period of one year (12 calendar months) from the date of entry into service. This guarantee is limited to replacement, free of charge to the customer, of components returned to the factory which are found to be defective in material or workmanship.

SAIMMCO LTD
ASSEMBLY

COMPANY PRODUCT RANGE

"SUNGURA" OX-DRAWN PLOUGHS

TOOL BAR IMPLEMENT SYSTEM

RIDGERS & BANKERS

DIAMOND SPIKE TOOTH HARROW

OX DRAWN CARTS (3 SIZES)

HAMMER MILLS 15 - 40 HP

RICE HULLERS

HAND GROUND NUT SHELLERS

HAND GROUND NUT ROASTERS

GROUND NUT LIFTERS

MANUAL OIL PRESSES

WATER TANKS (2,000 - 12,000 Ltrs)

SPARE PARTS FOR ALL ABOVE RANGE AND ALSO FOR OTHER SUPPLIERS UNITS

SPECIAL WORK TO DRAWINGS OR IDEAS

Project Funded by UNDP/UNCDF/GOU

SAIMMCO LTD (U)

Soroti

DAM SCOOP

PO BOX 280
SOROTI

☎ 045-61363
Fax 045-61361

SPECIFICATION

- Ox-drawn slip scraper with provision for graded dumping
- Scoop width 63 cm
- Scoop volume 0.095 cu m
- Thickness of dumped and graded material 50 mm
- Blade width 63 cm
- Replaceable (bolt-on) blade in hardened boron steel
- Replaceable boron steel skid runners
- Two replaceable hard wood handles, 1 m long
- Overall width 80 cm
- Overall length 2.2 m
- Weight [illegible] kg

CHARACTERISTICS

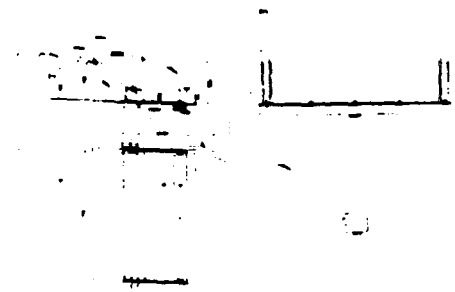
The SAIMMCO Dam Scoop is an ox-drawn slip scraper designed for earth-moving operations such as digging [illegible] ponds and forming small earth dams, also [illegible] filling soil for agricultural roads.

In operation the scoop is filled by raising the handles until the blade cuts soil. When full the scoop slides on its replaceable runners. To dump the soil, the handles are lowered until the scoop is pulled over centre onto its back, its [illegible] position being determined by the stop lugs. In this position the gap between the blade and the original ground level allows a graded flow of material, in a layer about 50mm thick, thus leaving a smooth, level surface.

The SAIMMCO Dam Scoop is rigidly constructed for durability. Replaceable boron steel blade and runners facilitate maintenance, as do the two replaceable wooden handles.

GUARANTEE

All implements and machines produced by SAIMMCO are guaranteed against defects in workmanship or materials for a period of one year (12 calendar months) from the date of entry into service. This guarantee is limited to replacement free of charge to the customer, of components returned to the factory which are found to be defective in material or workmanship.



COMPANY PRODUCT RANGE

"SUNGURA" OX-DRAWN PLOUGHS

TOOL BAR TILLAGE SYSTEM

RIDGERS & BANKERS

DIAMOND SPIKE TOOTH HARROW

OX DRAWN CARTS (3 SIZES)

HAMMER MILLS 15 - 40 HP

RICE HULLERS

HAND GROUND NUT SHELLERS

HAND GROUND NUT ROASTERS

GROUND NUT THRESHERS

MANUAL OIL PRESSES

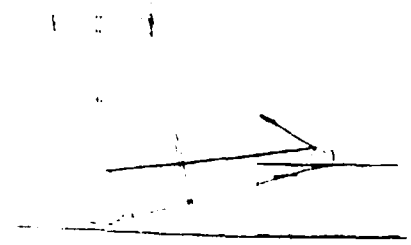
WATER TANKS (2,000 - 12,000 LTS)

SPARE PARTS FOR ALL ABOVE RANGE AND ALSO FOR OTHER SUPPLIERS UNITS

SPECIAL WORK TO DRAWINGS OR IDEAS

SAIMMCO LTD (U)

Soroti



HAMMER MILL

BROCHURE

PO BOX 280
SOROTI

☎ 045-61363
Fax 045-61361

SPECIFICATION

- Heavy duty hammer mills for grain crops cassava etc.
- Mill casing 6mm welded steel on 10mm steel base
- Horizontally split casing for ease of maintenance
- Cruciform dynamically balanced welded steel hammer carrier
- Shaft 50mm diameter
- Operating speed 3000 RPM
- Shaft bearings self aligning sealed ball bearing
- Bearing carrier full width, integral with casing
- Rigid hammers two-bolt fixing, reversible boron steel
- Hammer tip speed 87 8m sec
- Screen stainless steel tube supported full width
- Screen area 588sq in (30HP mill)
- Screen wrap 210 degrees
- Screen hole sizes 1.0, 1.5, 2.5
- Approximate capacities as follows

		40
		30
		48

- SAIMMCO hammer mills are supplied complete with driving pulley, vee belts, guard and bagging cyclone. Electric motor or diesel engine drive can be provided

CHARACTERISTICS

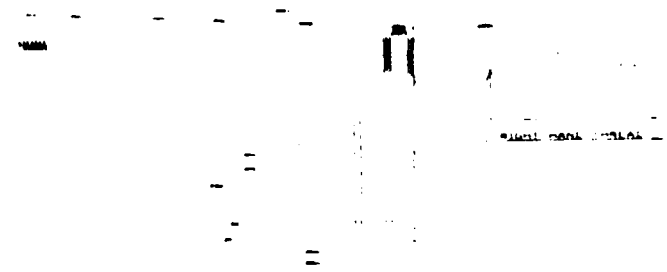
The SAIMMCO range of hammer mills is designed for maximum output and durability. The mill casing of 6mm steel plate on a 10mm steel base with full width support for the mill shaft bearings, provides complete rigidity and minimum vibration.

Reversible hammers of hardened boron steel ensure minimum wear.

The additional screen area provided by the 210 degree screen wrap increases output while the fully supported, stainless steel screen suffers minimum wear. The split casing gives access to the screen for ease of removal and cleaning and to the hammer carrier and hammers to facilitate maintenance.

GUARANTEE

All implements and machines produced by SAIMMCO are guaranteed against defects in workmanship or materials for a period of one year (12 calendar months) from the date of entry into service. This guarantee is limited to replacement, free of charge to the customer, of components returned to the factory which are found to be defective in material or workmanship.



APPENDIX 9

MINUTES OF TPR OF 16 OCTOBER 1996

APPENDIX 9

MINUTES OF TPR OF 16 OCTOBER 1996

These Minutes had not been received by the time of finalizing this report but may be placed here when convenient:

Last page of Minutes here.

APPENDIX 10

MINUTES OF WRAP-UP MEETING OF 5 NOVEMBER 1996

APPENDIX 10

MINUTES OF WRAP-UP MEETING OF 5 NOVEMBER 1996

These Minutes had not been received by the time of finalizing this report but may be placed here when convenient:

Last page of Wrap-up Meeting Minutes.

APPENDIX 11

PHOTOGRAPHS TAKEN DURING EVALUATION MISSION

APPENDIX II

PHOTOGRAPHS TAKEN DURING EVALUATION MISSION

Fig. 1 The difference between the SAIMMCO plough and... (see Fig. 2 below)

Fig. 2 .... and a very poorly adjusted plough observed in Tororo District (note the impossibly low height of the handles)

Fig. 3 Traditional method of transport of the plough. The SAIMMCO plough has a skid to reduce damage to the plough during this type of transport operation.

Fig. 4 Although farmers normally possess a sledge such as this, it is not always used for transporting the plough to the field. The alternative use of a cart is rarely, if ever, seen in Uganda.

Fig. 5 Guided by the MAAIF Animal Traction Officer for Tororo, Mr Ologe, the Evaluation Mission interview farmers in Tororo District.

Fig. 6 A member of the Evaluation Mission tries his hand at ploughing

APPENDIX 12

GOVERNMENT CONTRIBUTION TO SAIMMCO

APPENDIX 12

GOVERNMENT CONTRIBUTION TO SALMMCO

(for the Period 1990 to 1996)

Date	Description	Amount
24 Sept 1990	Quarterly release	11,813,916
01 Dec 1990	Quarterly release	35,352,457
06 Mar 1991	Quarterly release	30,000,000
17 May 1991	Quarterly release	26,000,000
01 Dec 1991	Quarterly release	8,764,500
17 Mar 1992	Quarterly release	10,800,000
12 Nov 1992	Quarterly release	1,000,000
02 Dec 1992	Quarterly release	5,800,000
05 Feb 1993	Quarterly release	6,140,000
11 Mar 1993	Quarterly release	7,400,000
23 Mar 1993	Quarterly release	12,210,000
19 May 1993	Quarterly release	2,000,000
29 May 1993	Quarterly release	10,260,000
29 Oct 1993	Quarterly release	7,115,000
03 Mar 1994	Quarterly release	5,000,000
11 Apr 1994	Quarterly release	18,300,000
05 May 1994	Quarterly release	18,320,000
23 Jun 1994	Quarterly release	36,600,000
12 Jul 1995	Release for Raw Materials	60,000,000
	SUB-TOTAL	**312,875,873**
	(Less) Revenues remitted to GoU	
	TOTAL	**312,875,873**

APPENDIX 13

SAIMMCO PRODUCT PRICE LIST OCTOBER 1996

APPENDIX 13

SAIMMCO PRODUCT PRICE LIST OCTOBER 1996

ITEM	UNIT	NET PRICE SAIMMCO	SALE PRICE (incl. 17% VAT)
OX-EQUIPMENT			
Sungura Ox Plough, 8"	1	95,000	112,000
RHS Toolbar with Weeder or Plough	1	150,000	175,000
- Plough attachment for RHS Toolbar	1	35,000	41,000
- Weeder attachment for RHS Toolbar	1	35,000	41,000
Ox cart, 1 ton capacity	1	440,000	515,000
Ox Diamond Spike Tooth Harrow	1	150,000	175,000
Ox Dam Scoop	1	175,000	204,750
PLOUGH SPARES			
Mouldboard	1	15,900	19,000
Share	1	5,200	6,100
Landside	1	4,500	5,300
Handles	1	5,000	6,000
Wheel assembly	1	11,500	13,500
Wheel Clamp	1	3,500	4,100
HAMMER MILLS			
Hammer Mill (20 HP) including base but excluding motor/engine	1	2,200,000	2,575,000
Hammer Mill including base and 20 HP Diesel engine	1	9,800,000	11,410,000
Hammer Mill including base and 20 HP Electric Motor	1	5,000,000	5,850,000

NOTE: *Price list provided to Evaluation Mission on 30 October 1996.*

APPENDIX 14

UTILISATION OF ANIMAL DRAFT POWER IN UGANDA IN 1986 AND 1992

APPENDIX 14

UTILISATION OF ANIMAL DRAFT POWER IN UGANDA IN 1986 AND 1992

District	1986					1992				
	House holds ('000)	Cattle popul. ('000)	ADP use (%)	H/h using ADP	Ploughs in use ('000)	House holds ('000)	Cattle popul. ('000)	ADP use (%)	H/h using ADP	Ploughs in use ('000)
Soroti	72	317	96	68	35	58	20	95	56	8
Kumi	25	135	90	23	14	27	15	90	24	6
Tororo	170	248	90	153	26	171	218	85	145	27
Kitgum	52	155	85	44	15	57	5	85	48	2
Lira	60	244	80	48	23	75	10	80	61	4
Kapchorwa	17	30	25	4	4	2	32	25	5	4
Moroto	31	282	75	23	21	27	900	75	20	21
Iganga	108	129	50	54	15	132	137	55	62	16
Gulu	43	102	50	22	12	45	11	50	23	12
Kotido	27	26	50	14	3	3	400	50	15	14
Apac	52	184	40	21	17	75	46	40	30	12
Mbale	56	89	45	25	60	6	94	45	27	11
Masindi	78	64	30	2	2	77	42	30	23	2
Kasese	76	88	20	15	2	75	89	4	30	3
Kamuli	49	133	20	10	8	5	135	20	10	8
Jinja	75	15	20	15	2	75	16	20	15	2
Hoima	66	32	15	10	4	4	34	15	6	5
Luwero	78	89	10	8	5	85	94	10	9	5
Nebbi	28	57	5	1	1	42	61	5	2	1
Arua	28	95	5	1	1	5	101	5	3	1
Kabarole	114	144	3	3	3	13	153	3	4	4
Moyo	10	16	3	0	0	2	17	3	1	0
Total	1275	2674	-	564	223	1448	2324	-	619	147

Sources:

- Report on Uganda National Census for Agriculture and Livestock, Dec 1992
- Uganda Districts Information Hand Book, 1992.
- Odogola W.R, Akou A., Afidra G O. *The Status of Animal Draught Power in Uganda: Future trends and Prospects*. Paper presented at the Regional AGRO-TEC Workshop in Harare, Zimbabwe, 1992.
- Foot note (*): % of households using or directly benefitting from animal draft power in the district

APPENDIX 15

ANALYSIS OF FINANCIAL SCENARIOS FOR SAIMMCO

APPENDIX 15

ANALYSIS OF FINANCIAL SCENARIOS FOR SAIMMCO

Comments to the different scenarios used for the calculations

The graph indicates the three projections of possible company revenues over the next eight years, based on discussions with project management during the visit of the Evaluation Mission. These are also compared with the projections used in the 1994 UNCDF review mission (Baerez and Odeke, 1994).

The three basic scenarios are :

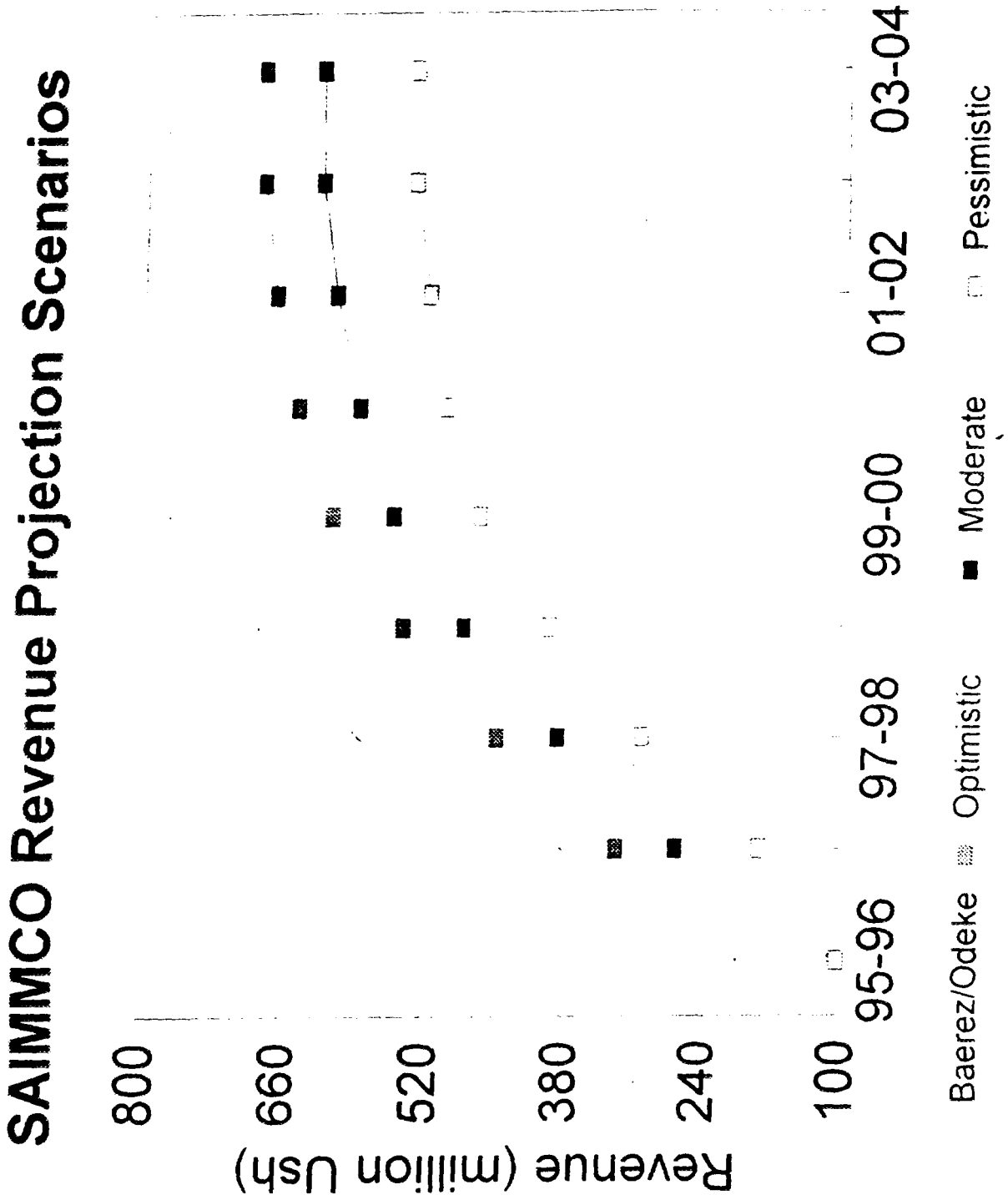
- **Scenario A**: Optimistic revenue projections with 2 options for the number of workers operating in the plant;
- **Scenario B**: Moderate revenue projections with 2 options for the number of workers operating the plant;
- **Scenario C**: Pessimistic revenue projections with 2 options for the number of workers operating the plant;

Six tables of analysis for these scenarios are presented:

1) A1: Optimistic revenue projections with constant number of workers;
2) A2: Optimistic revenue projections with increased number of workers;
3) B1: Moderate revenue projections with constant number of workers;
4) B2: Moderate revenue projections with increased number of workers;
5) C1: Pessimistic revenue projections with constant number of workers;
6) C2: Pessimistic revenue projections with increased number of workers.

There is no assumption for corporate tax payments.

The revenues are projected for the following 8 years, where the financial/accounting year 1995-1996 shows the actual figures and is assumed to be the first "normal" operational year.


SAIMMCO Revenue Projection Scenarios
Revenue (million Ush)
800
660
520
380
240
100
95-96
97-98
99-00
01-02
03-04
Baerez/Odeke
Optimistic
Moderate
Pessimistic

SCENARIO A:1 OPTIMISTIC REVENUE PROJECTIONS

ASSUMPTIONS - THE NUMBER OF WORKERS ARE CONSTANT ASSUMING AN INCREASED WORKER EFFICIENCY

PROJECTED SALES PROGRAMME	UGANDA SHILLINGS MILLION								
	ACTUAL								
	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
REVENUE									
FACTORY	83.6	275.0	375.0	450.0	500.0	525.0	540.0	550.0	550.0
NON FACTORY	17.8	50.0	70.0	90.0	110.0	120.0	130.0	135.0	135.0
SUB TOT	**101.4**	**325.0**	**445.0**	**540.0**	**610.0**	**645.0**	**670.0**	**685.0**	**685.0**
PROD. COSTS & O/HEADS EXCL. INTEREST									
RAW MATERIALS	50.3	130.0	178.0	216.0	244.0	258.0	268.0	274.0	274.0
WAGES	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
SUPPLIES & SERVICES	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
MAINTENANCE & REPAIR	0.9	5.0	5.0	5.0	10.0	10.0	10.0	10.0	10.0
CHANGE IN STOCK	(39.9)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEPRECIATION	94.5	102.5	102.5	74.6	74.6	66.7	66.7	66.7	66.7
MAN & ADMIN SALARY	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
FIXED OVERHEADS	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
SUB TOT	**221.4**	**353.1**	**401.1**	**411.2**	**444.2**	**450.3**	**460.3**	**466.3**	**466.3**
PROFIT/LOSS 1	**(120.0)**	**(28.1)**	**43.9**	**128.8**	**165.8**	**194.7**	**209.7**	**218.7**	**218.7**

SCENARIO A:2 OPTIMISTIC REVENUE PROJECTIONS

ASSUMPTIONS - THE NUMBER OF WORKERS INCREASED FROM 1996-1997 BY 100 %

PROJECTED SALES PROGRAMME	UGANDA SHILLINGS MILLION								
	ACTUAL								
	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
REVENUE									
FACTORY	83.6	275.0	375.0	450.0	500.0	525.0	540.0	550.0	550.0
NON FACTORY	17.8	50.0	70.0	90.0	110.0	120.0	130.0	135.0	135.0
SUB TOT	**101.4**	**325.0**	**445.0**	**540.0**	**610.0**	**645.0**	**670.0**	**685.0**	**685.0**
PROD. COSTS & O/HEADS EXCL. INTEREST									
RAW MATERIALS	50.3	130.0	178.0	216.0	244.0	258.0	268.0	274.0	274.0
WAGES	38.7	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
SUPPLIES & SERVICES	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
MAINTENANCE & REPAIR	0.9	5.0	5.0	5.0	10.0	10.0	10.0	10.0	10.0
CHANGE IN STOCK	(39.9)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEPRECIATION	94.5	102.5	102.5	74.6	74.6	66.7	66.7	66.7	66.7
MAN & ADMIN SALARY	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
FIXED OVERHEADS	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
SUB TOT	**221.4**	**391.8**	**439.8**	**449.9**	**482.9**	**489.0**	**499.0**	**505.0**	**505.0**
PROFIT/LOSS 1	**(120.0)**	**(66.8)**	**5.2**	**90.1**	**127.1**	**156.0**	**171.0**	**180.0**	**180.0**

SCENARIO B:1 **MODERATE REVENUE PROJECTIONS**

ASSUMPTIONS - THE NUMBER OF WORKERS ARE CONSTANT ASSUMING AN INCREASED WORKER EFFICIENCY

PROJECTED SALES PROGRAMME	UGANDA SHILLINGS MILLION								
	ACTUAL 1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
REVENUE									
FACTORY	83.6	215.0	315.0	390.0	440.0	465.0	480.0	490.0	490.0
NON FACTORY	17.8	50.0	70.0	90.0	110.0	120.0	130.0	135.0	135.0
SUB TOT	**101.4**	**265.0**	**385.0**	**480.0**	**550.0**	**585.0**	**610.0**	**625.0**	**625.0**
PROD. COSTS & O/HEADS EXCL. INTEREST									
RAW MATERIALS	50.3	106.0	154.0	192.0	220.0	234.0	244.0	250.0	250.0
WAGES	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
SUPPLIES & SERVICES	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
MAINTENANCE & REPAIR	0.9	5.0	5.0	5.0	10.0	10.0	10.0	10.0	10.0
CHANGE IN STOCK	(39.9)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEPRECIATION	94.5	102.5	102.5	74.6	74.6	66.7	66.7	66.7	66.7
MAN & ADMIN SALARY	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
FIXED OVERHEADS	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
SUB TOT	**221.4**	**329.1**	**377.1**	**387.2**	**420.2**	**426.3**	**436.3**	**442.3**	**442.3**
PROFIT/LOSS 1	**(120.0)**	**(64.1)**	**7.9**	**92.8**	**129.8**	**158.7**	**173.7**	**182.7**	**182.7**

SCENARIO B:2 **MODERATE REVENUE PROJECTIONS**

ASSUMPTIONS - THE NUMBER OF WORKERS INCREASED FROM 1996-1997 BY 100 %

PROJECTED SALES PROGRAMME	UGANDA SHILLINGS MILLION								
	ACTUAL 1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
REVENUE									
FACTORY	83 6	215 0	315.0	390.0	440.0	465.0	480.0	490.0	490.0
NON FACTORY	17 8	50 0	70 0	90.0	110 0	120 0	130.0	135.0	135.0
SUB TOT	**101.4**	**265.0**	**385.0**	**480.0**	**550.0**	**585.0**	**610.0**	**625.0**	**625.0**
PROD. COSTS & O/HEADS EXCL. INTEREST									
RAW MATERIALS	50 3	106 0	154 0	192 0	220 0	234 0	244.0	250.0	250.0
WAGES	38 7	77 4	77 4	77 4	77 4	77 4	77.4	77.4	77.4
SUPPLIES & SERVICES	17 0	17 0	17 0	17 0	17 0	17 0	17.0	17.0	17.0
MAINTENANCE & REPAIR	0 9	5 0	5 0	5 0	10 0	10 0	10.0	10 0	10 0
CHANGE IN STOCK	(39 9)	0 0	0 0	0 0	0 0	0 0	0.0	0 0	0 0
DEPRECIATION	94 5	102.5	102 5	74 6	74 6	66 7	66.7	66.7	66 7
MAN & ADMIN SALARY	17 7	17 7	17 7	17 7	17 7	17 7	17.7	17.7	17.7
FIXED OVERHEADS	42 2	42 2	42 2	42 2	42 2	42 2	42.2	42.2	42 2
SUB TOT	**221.4**	**367.8**	**415.8**	**425.9**	**458.9**	**465.0**	**475.0**	**481.0**	**481.0**
PROFIT/LOSS 1	**(120.0)**	**(102.8)**	**(30.8)**	**54.1**	**91.1**	**120.0**	**135.0**	**144.0**	**144.0**

SCENARIO C:1 **PESSIMISTIC REVENUE PROJECTIONS**

ASSUMPTIONS - THE NUMBER OF WORKERS ARE CONSTANT ASSUMING AN INCREASED WORKER EFFICIENCY

PROJECTED SALES PROGRAMME	UGANDA SHILLINGS MILLION								
	ACTUAL								
	1995-96	**1996-97**	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**	**2002-03**	**2003-04**
REVENUE									
FACTORY	83.6	130.0	230.0	305.0	355.0	380.0	390.0	400.0	400.0
NON FACTORY	17.8	50.0	70.0	90.0	110.0	120.0	130.0	135.0	135.0
SUB TOT	**101.4**	**180.0**	**300.0**	**395.0**	**465.0**	**500.0**	**520.0**	**535.0**	**535.0**
PROD. COSTS & O/HEADS EXCL. INTEREST									
RAW MATERIALS	50.3	72.0	120.0	158.0	186.0	200.0	208.0	214.0	214.0
WAGES	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
SUPPLIES & SERVICES	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
MAINTENANCE & REPAIR	0.9	5.0	5.0	5.0	10.0	10.0	10.0	10.0	10.0
CHANGE IN STOCK	(39.9)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEPRECIATION	94.5	102.5	102.5	74.6	74.6	66.7	66.7	66.7	66.7
MAN & ADMIN SALARY	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
FIXED OVERHEADS	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
SUB TOT	**221.4**	**295.1**	**343.1**	**353.2**	**386.2**	**392.3**	**400.3**	**406.3**	**406.3**
PROFIT/LOSS 1	**(120.0)**	**(115.1)**	**(43.1)**	**41.8**	**78.8**	**107.7**	**119.7**	**128.7**	**128.7**

SCENARIO C:2 **PESSIMISTIC REVENUE PROJECTIONS**

ASSUMPTIONS - THE NUMBER OF WORKERS INCREASED FROM 1996-1997 BY 100 %

PROJECTED SALES PROGRAMME	UGANDA SHILLINGS MILLION								
	ACTUAL								
	1995-96	**1996-97**	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**	**2002-03**	**2003-04**
REVENUE									
FACTORY	83 6	130.0	230 0	305 0	355.0	380.0	390.0	400.0	400 0
NON FACTORY	17 8	50.0	70 0	90 0	110.0	120 0	130.0	135.0	135.0
SUB TOT	**101.4**	**180.0**	**300.0**	**395.0**	**465.0**	**500.0**	**520.0**	**535.0**	**535.0**
PROD. COSTS & O/HEADS EXCL. INTEREST									
RAW MATERIALS	50 3	72 0	120 0	158 0	186 0	200 0	208.0	214.0	214.0
WAGES	38 7	77 4	77 4	77 4	77 4	77 4	77.4	77.4	77 4
SUPPLIES & SERVICES	17 0	17 0	17 0	17 0	17 0	17 0	17.0	17.0	17 0
MAINTENANCE & REPAIR	0 9	5 0	5 0	5 0	10 0	10 0	10.0	10.0	10 0
CHANGE IN STOCK	(39 9)	0 0	0 0	0 0	0 0	0 0	0.0	0.0	0 0
DEPRECIATION	94 5	102 5	102 5	74 6	74 6	66 7	66.7	66.7	66 7
MAN & ADMIN SALARY	17 7	17 7	17 7	17 7	17 7	17 7	17.7	17.7	17 7
FIXED OVERHEADS	42 2	42 2	42 2	42 2	42 2	42 2	42.2	42.2	42 2
SUB TOT	**221.4**	**333.8**	**381.8**	**391.9**	**424.9**	**431.0**	**439.0**	**445.0**	**445.0**
PROFIT/LOSS 1	**(120.0)**	**(153.8)**	**(81.8)**	**3.1**	**40.1**	**69.0**	**81.0**	**90.0**	**90.0**

Comments to the Schedule of Financial Indicators for the Different Scenarios

The schedule contains the same 3 scenarios used above (A1, B1, C1) representing an optimistic, a moderate and a pessimistic forecast of the projected revenue and with the costs assuming a constant number of workers.

Each scenario has two sub-scenarios representing a reduced initial investment/asset value.

The two new initial investment/asset values used for the sub-scenarios are derived as follows:

ASSET ITEMS (Million USh)	Original Scenario	Sub-Scenario 1	Sub-Scenario 2
Construction & Building	972.80	972.80	700.00
Machinery	545.92	545.92	423.49
Initial Working Capital	359.06		
TOTAL ASSET VALUE	1,877.78	1,518.72	1,123.49

Asset values are based on cost values as outlined in the SAIMMCO Financial Statement in the 7th Progress Report

The Net Present Values are calculated using a discount rate of 7 %.

The Discounting Period is 15 years and the revenues and cost are assumed constant from the 9th year of operation.

The Pay Back Period indicates the number of years it takes to repay the initial investment out... of the project.

Interpretation of Financial Rates of Return used for the calculations of financial indicators.

The following Rates of Return have been calculated:

- Internal Rate of Return on Total Investment (IRR).
- Internal Rate of Return on Equity (IRRE1).
- Internal Rate of Return on Equity (IRRE2).

Internal Rate of Return on Total Investment (IRR).

The cash-flow used for calculating IRR is as follow:

1) Real initial investment in period 1, which is equal to total investment less financial pre-production expenditures (interest).

2) Net cash-flow in period 2, which is equal to:
sales less operating cost
less increase in working capital
less increase in fixed capital
less corporate tax

3) Net cash-flow on yearly basis until last year of production.

4) Salvage value of initial fixed investment plus recovery of working capital.

The IRR is the relevant criterion for evaluation from the investor's or from the project's point of view, and indicates whether the total investment is a success or not.

Neither the cost of finance nor the depreciation charges have any influence on the generated cash-flow used for the computation of IRR.

For our specific case, there is no initial construction period and therefore no real initial investment. Only for computation purposes, the value of the assets of the Company are used instead of an initial investment and have no influence on the final result.

Internal Rate of Return on Equity (IRRE1).

The cash-flow used for calculating IRRE1 is as follow:

1) Equity paid in period 1.

2) Net profit in period 2, which is equal to:
sales less variable cost
less fixed cost (including depreciation)
less cost of finance
less corporate tax

3) Net profit on yearly basis until last year of production.

The IRRE1 is one of several possible criteria for evaluating the financial attractiveness of a project, which takes the mode of finance into special account. It is a concept similar to what economists call "the rate of profit on production" and IRRE1 is the relevant rate of return from the production manager's point of view.

Internal Rate of Return on Equity (IRRE2).

The cash-flow used for calculating IRRE2 is as follow:

1) Equity paid in period 1.

2) Net cash-flow less debt service in period 2, equal to:
sales less operating cost
less increase in working capital
less increase in fixed capital
less cost of finance
less debt repayment
less corporate tax

3) Net cash-flow less debt service on yearly basis until last year of production.

The IRRE2 is an indicator measuring the financial attractiveness of the project from the shareholders' point of view.

SCHEDULE FOR FINANCIAL INDICATORS FOR DIFFERENT SCENARIOS

	NET PRESENT VALUE USh (Million) (NPV)	INTERNAL RATE OF RETURN (IRR)	INTERNAL RATE OF RETURN (IRRE1)	INTERNAL RATE OF RETURN (IRRE2)	PAY BACK PERIOD (YEARS)
OPTIMISTIC SCENARIO (A):					
With Initial Asset Value USh 1,878 Million	+343	9 %	3 %	9 %	9 YEARS
Reduced Initial Asset Value USh 1,518 Million	+580	11 %	5 %	11 %	8 YEARS
Reduced Initial Asset Value USh 1,123 Million	+918	15 %	10 %	15 %	6 YEARS
MODERATE SCENARIO (B):					
With Initial Asset Value USh 1,878 Million	+49	7 %	1 %	7 %	10 YEARS
Reduced Initial Asset Value USh 1,518 Million	+286	9 %	3 %	9 %	9 YEARS
Reduced Initail Asset Value USh 1,123 Million	+624	13 %	7 %	13 %	7 YEARS
PESSIMISTIC SCENARIO (C):					
With Initial Asset Value USh 1,878 Million	-380	5 %	-	5 %	13 YEARS
Reduced Initial Asset Value USh 1,518 Million	-143	6 %	-	6 %	11 YEARS
Reduced Initial Asset Value USh 1,123 Million	+193	9 %	3 %	9 %	9 YEARS

APPENDIX 16

MARKETING STRATEGY RECOMMENDATIONS

APPENDIX 16

MARKETING STRATEGY RECOMMENDATIONS

The following recommendations were made by the Marketing Consultant and presented in the report which is included as an Appendix to the 7th Progress Report. Because of the important implications for the company, they are reproduced below:

Recommendations

1) Based on the conclusions outlined above and detailed in the report, it is recommended that SAIMMCO establish a marketing relationship with MAGRIC Uganda Ltd. through a formal Distribution Agreement which would cover the regular SAIMMCO product line of ox-drawn agricultural implements to be sold through the MAGRIC network of rural dealers and also direct from the factory.

2) Secondly, it is recommended that SAIMMCO further develop, through its in-house desk-top publishing facility, the series of leaflets and newsletters initiated during this mission, for distribution both through MAGRIC's direct mail programme and through a parallel direct mail programme to be established by SAIMMCO.

3) Thirdly, it is recommended that SAIMMCO develop a close relationship with the ginnery industry both for the services which SAIMMCO is uniquely capable of providing in ginnery rehabilitation and for the sake of the possible influence the ginneries may have in marketing agricultural implements among contract growers.

4) Fourthly, it is recommended that SAIMMCO develop a commercial interface through the employment of a sales clerk, or "shop-keeper" to handle sales enquiries, process orders and look after customers at the factory. Plans to convert the small room at the rear of the entrance hall as a sales counter area should be carried out immediately and suitable signs should be provided to better identify the SAIMMCO premises and to direct customers.

5) Finally, it is recommended that the other aspects of business management mentioned in Para. 2.12 above should be examined in the context of the annual analysis and presentation of the company accounts for eventual discussion at the next tri-partite review meeting.

APPENDIX 17

PRIVATISATION CALENDAR

APPENDIX 17

PRVATISATION CALENDAR

The following calendar for the privatisation of SAIMMCO was prepared by the Privatisation Consultant and has been agreed and approved at the Tri-partite Review Meeting of 6 October 1996:

APPENDIX 17

PRVATISATION CALENDAR

The following calendar for the privatisation of SAIMMCO was prepared by the Privatisation Consultant and has been agreed and approved at the Tri partite Review Meeting of 6 October 1996

SAIMMCO LTD

Former and Revised Schedule for Privatisation

Steps to be Carried Out	Original Schedule		Completion Date		Revised Schedule
[illegible]		[illegible]		[illegible]	[illegible]
[illegible]		[illegible]		[illegible]	[illegible]
[illegible]		[illegible]		[illegible]	[illegible]
[illegible] SAIMMCO		[illegible]		[illegible]	[illegible]
[illegible] SAIMMCO	[illegible]	[illegible]	early	[illegible]	[illegible]
[illegible]	early	[illegible]	early	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Prepare draft bid [illegible]	[illegible]	[illegible]	not	[illegible]	[illegible]
Start [illegible]	[illegible]	[illegible]	not	[illegible]	[illegible]
Start [illegible]	[illegible]	[illegible]	early		[illegible]
[illegible] SAIMMCO [illegible]	[illegible]	[illegible]	not	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Issue [illegible]	[illegible]	[illegible]	not	[illegible]	[illegible]
Start bid process	[illegible]	[illegible]	not	[illegible]	[illegible]
Prepare [illegible] and guidelines		[illegible]	not	[illegible]	[illegible]
Finish bid process	end	[illegible]	not	started	[illegible] Jan 97
Start evaluation of bids	early	Dec-96	not	started	[illegible] Jan 97
Finish pre-qualification - Stage I	not	shown	not	shown	21 Jan 97
Finish evaluation of bids	mid	Dec-96	not	started	[illegible] Feb 97
Confirm evaluation by [illegible]	not	shown	not	started	[illegible] Feb 97
Award of contract	early	Jan 97	not	started	[illegible] Feb 97
Start negotiations with successful Bidder	mid	Jan 97	not	started	[illegible] Feb 97
Count and value stocks at handover	end	Jan 97	not	started	08 Mar 97
Conclude negotiations with new owner	end	Jan 97	not	started	11 Mar 97
Hand over factory to new owner	early	Feb 97	not	started	15 Mar 97