



OCCASION

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



DISCLAIMER

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

FAIR USE POLICY

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

CONTACT

Please contact <u>publications@unido.org</u> for further information concerning UNIDO publications.

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



ASSISTANCE IN REHABILITATION OF THE EAST AFRICAN STEEL CORPORATION (EASCO) AT JINJA

DP/UGA/84/018/11-01/J13208

UGANDA

Technical Report: Consultant Mission

Prepared for the Government of Uganda by the United Nations Industrial Development Organization

Based on the work of G.J. Polson Consultant

Backstopping Officer: Dr. T. Grof - Metallurgical Branch

United Nations Industrial Development Organization
Vienna

1991

INTRODUCTION

The assignment followed on from previous assistance given by UNIDO and detailed in the report covering the period 2nd July to 28th October 1989 by Mr. K.J.Hawes. The reference documents mentioned in that report are equally relevant to this assignment, and it is unnecessary to re-state the history.

From the preliminary briefing in Vienna and a review of the project files it was apparent that the project had encountered serious difficulties and had fallen badly behind time. Therefore a prime requirement on arrival on site was to assess the situation and identify the obstacles to progress. Following this it would be necessary to assist in preparatory work for continuation and completion, as well as to point to such future assistance as might be provided by UNIDO.

The job description and terms of reference are attached as Annex I.

The assignment commenced on 9th May and a briefing took place in Vienna on 10th May followed by departure on 11th May and arrival in Entebbe, Uganda on 12th May.

Initial administrative matters were attended to in the UNDP office, Kampala on 13th May and the first site visit and meeting with the General Manager and senior staff members of EASCO took place on 14th May. A tour of the works with the General Manager served to correct earlier impressions as to the physical situation on site. Much of the correspondence and documentation on file centered on the problems and slow progress of the civil engineering works which had been the main pre-occupation of Mr. Hawes, the previous Advisor.

The objectives of this mission were to assess the present situation and, within the terms of reference outlined in the job description (Annex I), to assist the Company to prepare for installation, commissioning and operation of the plant. It was further desired to identify such further assistance which might be required by the Government of Uganda, in connection with the project, from UNIDO.

The immediate consequence of the initial assessment of the situation at EASCO was to place a change of emphasis on the terms of reference. There would obviously be little need for supervision of the civil works and it was also disclosed that Daniell had recently conducted an inspection of the equipment on site and had submitted estimates for the cost of damaged or missing items. They were not able to check every small item of deficiency as these would become apparent only as erection work proceeded. However, major items were checked and had already been confirmed by EASCO.

ABSTRACT

Assistance in Rehabilitation of the East African Steel Corporation (EASCO) at Jinja, Uganda.

DP/UGA/84/018/11 - 01/J 13208

Objectives

To advise and assist in the preparatory work required to complete installation and commissioning of the EASCO plant.

Conclusions and Recommendations

- 1. Further participation by UNIDO is dependent on a Government of Uganda decision in regard to financing of the erection of the plant.
 - 2. Subject to (1):
 - (a) Advice and assistance in negotiation of a contract for completion of erection.
 - (b) Assistance in supervision of erection.
 - (c) Assistance in arranging study tours for management, training of technicians by experts and assistance in establishing systems for maintenance, production planning and training.
 - (d) Supervision of main production departments during running-in period.
 - 3. A review of all studies and reports concerned with the steel industry of Uganda, including the country's iron ore resources with the objective of creating a coherent policy and master plan for iron and steel industry within the framework and compatible with the National Rehabilitation Plan.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1-2
I - ACTIVITIES	
A - Initial Situation.	2-4
B - Activities to Promote Implementation of Erection and Completion of the Rehabilitation.	4-6
C - Recommendations.	6-7
TERMS OF REFERENCE	ANNEX I
EVENTS CONNECTED WITH DANIELI CONTRACT	ANNEX II
LIST OF REPORTS, STUDIES	ANNEX III
MONTHLY PRODUCTION AND REVENUE	ANNEX IV
MANPOWER LISTS	ANNEX V
AMENDMENTS TO DANIELI CONTRACT	ANNEX VI
LETTER FROM UGANDA DEVELOPMENT BANK	ANNEX VII
PROJECT PROFILE (Ministry of Planning and Economic Development)	ANNEX VIII
HEADINGS FOR TENDER DOCUMENT	ANNEX IX
MINISTRY OF PLANNING LETTER - Pilot Iron and Steel Project	ANNEX X
ESTIMATED COST of ERECTION, COMMISSIONING and SUPERVISION of START-UP	ANNEX XI
PROJECT DOCUMENT	ANNEX XII
SUBSTANTIVE COMMENTS OF UNIDO	ANNEX XIII
PLAN OF STEEL WORKS (Original copy only) PHOTOGRAPHS OF STEEL WORKS)	

Since the supply and erection contract had expired the question of supervision by the machinery supplier became subordinate to the major problem of whether or not a new contract for the completion of erection and commissioning could be negotiated and with whom and at what price.

This then was to become the central focus of activity involving discussions with the Government departments involved and assistance to EASCO in preparing technical and financial justifications in support of their requests to Government to provide finance for completion of the erection and commissioning of the plant.

A chronological list of the major events affecting execution of the project is attached as Annex II.

A list of studies and reports concerned with the steel industry is attached as Annex III.

I. ACTIVITIES

A. Initial Situation

Civil Works

The first civil engineering contract with Bazira Construction Ltd. had failed (see report of Mr. K.J.Hawes - 2.7.89 to 28.10.89) and the work was re-tendered and a contract awarded to Wade Adams Construction Ltd. in March 1990. The completion date, originally September 1990 was extended to March 1991 and the contract price, originally U.Shs.1,630 billion was revised to 3,655 billion, partly in consequence of additional works not included in the original contract.

At the time of the first visit to site on 14th May 91 it was apparent that the civil works were very nearly complete, albeit with an over-run of nearly two months. An inspection was carried out by the Consultants, Quantity Surveyors and Management on 21st May but the final certificate was withheld pending rectification of minor defects and incomplete items. A second inspection date was set for 4th June and the works were handed over so that the six months defects warranty period has now commenced.

The actual situation of the civil works was therefore found to be better than expected and was no longer an impediment to the erection and installation of the machinery and equipment.

It was acknowledged by the Management of EASCO that it would be necessary to arrange for the civil engineering contractor, Wade Adams, Construction Ltd., to remain in attendance during the plant erection stage. Since erection may not commence within the 6 months defects warranty period of the contract it will probably

be necessary to negotiate a new contract to cover the attendance.

Steel Works

The works were operationally at a standstill except for some production of bolts and nuts and some production of oxygen. Details of production levels and sales are given in Annex IV but these are insignificant as contributors to the main enterprise. Annex V shows the manning and staffing levels at present and alongside an estimate of the levels necessary for full operation.

The old equipment to be built into the new plant still requires overhaul. This was covered under the original contract for erection and commissioning. In the event of there being a long delay in securing the erection contract, some basic overhaul work, mainly cleaning, greasing and painting, could be carried out locally with longer term benefits and the immediate benefit of absorbing some of the current labour costs. From superficial examination, the new plant was generally found to be in good condition. Detailed mechanical and internal inspection could only have been carried out with the assistance of a skilled maintenance crew which was not available. In any event any mechanical interference with the new equipment supplied by Danieli could not be countenanced so long as there remained a possibility that Danieli would complete the erection and commissioning. Otherwise guarantees would be forfeit.

The main factory buildings were all found to be in fairly good and serviceable condition and ready for installation of machinery and equipment. Some extension to the existing stores will be required to accommodate the new inventories of spares for the new equipment. This can only be assessed when a stock check of the existing spares and components has been carried out and redundant items scrapped or disposed of.

The test house machinery, in particular the tensile testing machine, was obviously in need of overhaul, and probably calibration and the chemical laboratory was devoid of equipment, although some chemical equipment is held in the stores.

Similarly, although a new electronics laboratory has been provided, there was no equipment and no evidence of it in the stores. Because of the sophisticated control equipment for the new plant, the provision of testing and diagnostic and programming equipment, tools and spares are an obvious requirement. The services of a skilled technician will be of paramount importance in determining the specific requirement.

Services

The main services of water, electricity and drainage were all in place but communications were less than satisfactory, the

telephone system being particularly unreliable. A telefax is installed.

The access road about 4 km. in length from the main Kampala-Jinja road is in appalling condition and totally unsuitable for heavy vehicle traffic. The metalled surface is badly broken up and pot-holed. It is also subject to local flooding. This poor access would provide a severe handicap to operations unless improved. This remains a matter for the local Government Authority and EASCO.

Rail access is provided to the factory which has it's own siding. This will be a benefit in receiving some raw materials and in despatch of some of the production.

Transport consisted of :

- 2 Trucks
- 1 Van
- 2 Pick-ups
- 3 Cars
- 1 Fork-lift truck

For present purposes this is more than adequate provided maintenance is carried out and the vehicles kept in sound condition.

B. Activities to Promote Implementation of Erection and Completion of the Rehabilitation

The civil engineering being complete, attention was given to the steps necessary to initiate erection of the plant.

As will be seen from Annex II, the contract with Danieli was amended a number of times but the most significant changes were those contained in amendments 4 and 5 dated 2nd July 88 and 20th April 90 respectively. Since these amendments have a direct bearing on the present stagnation of the project, copies are attached as Annex VI.

Attention is particularly drawn to clause II of Amendment 4 which finally committed EASCO to complete the civil works by 1st March 90. Failure by EASCO would render the contract null and void and EASCO would receive a refund of US \$ 450,000, in effect as compensation for the erection and commissioning not having been implemented.

Under clauses 1.0 and 12.0 of Amendment 5 the US \$ 450,000 could be used by EASCO to obtain equipment, materials, training or supervision for erectior and commissioning. These materials and services could be requested from Danieli and some have been ordered.

In fact the civil works were not completed in time and the contract with Danieli for supply, erection and commissioning has therefore been deemed complete and the stipulations of clauses 11 of Amendment 4 and clauses 1.0 and 12.0 of Amendment 5 have taken effect.

Before any physical action could be taken to proceed with erection it was therefore necessary to examine the cost consequences of the contractual failure and, equally importantly to advise EASCO and Government as to the best way out of the difficulty.

From the technical viewpoint the best, quickest and, most probably, the lowest final cost solution appeared to be to re-negotiate with Danieli. However EASCO had already received quotations in March 91 based both on a turnkey contract and on a piecemeal basis for the supply of technical personnel and services, necessary spares and overhauling of equipment. In either case the estimated cost was in excess of US \$ 5 million and would probably be subject to further inflation if activated now.

At the same time, the Government Ministry of Industry and Technology and the Ministry of Finance were in possession of the SGS reports and Danieli invoices which showed that the original contract for US \$ 12.1 million was apportioned as :-

- Supply machinery, equipment and spares US \$ 8,960 M - Erection US \$ 2,446 M - Engineering US \$ 0,698 M

They therefore took the view that the US \$ 450,000 negotiated in Amendments 4 and 5 was derisory, a view which was reinforced by the more recent quotations of approximately US\$ 5M to carry out the same work as had been originally contracted.

In consequence, in addition to the overall problems associated with any form of foreign exchange funding, there was a marked antipathy in some quarters of Government to further relationships with Danieli.

Furthermore it became apparent that there was a policy shift away from direct Government financing in industry toward encouraging private investment.

To complicate matters further, an offer had been received from Taiwan which appeared to offer a low cost solution, but which attached some conditions which EASCO could not possibly meet and proposed a staged programme of implementation which could extend the time for completion to 23 months. (This compared with the latest Danieli proposals of erection in 6 months and commissioning in a further 2 to 3 months). Other aspects of the

Taiwan offer which could not be finally evaluated involved the supply of billets in the first stage, a bonus based on 30% of profits and the negotiation of a joint venture on complecion.

Government were advised to treat this offer with caution and further, in the event of inability to reach an accommodation with Danieli, to seek international tenders from reputed engineering companies.

As a first step toward unblocking the obstruction to progress, Government has been repeatedly requested to indicate clearly whether or not they wish the project to proceed and also to inform EASCO what would be the financial limits for negotiation purposes.

Against the possibility that Government is unwilling or unable to provide sufficient finance, an approach has also been made to the Public Enterprise Secretariat of the Ministry of Finance who may have access to certain World Bank Funds for Enterprise Development Projects. The projects put forward under this heading will be assessed on the basis of relative viability and, regrettably, steelmaking projects tend to be weak in this respect.

There is also in the background another impediment to decision making by Government, namely the position of the Madhvani Group, the original owners of EASCO. As far as could be determined, the Madhvani interest in the equity remains at 49% and the capital, injected by Government for the rehabilitation, was in the form of a loan. Clarification and legal resolution of the Madhvani situation may possibly be a factor inhibiting progress. A letter attached as Annex VII illustrates the problem.

All other activities were carried out on the assumption that a favourable decision to proceed with erection and commissioning would be forthcoming and an estimate for the cost of carrying out this work is attached as ANNEX XI. On the same assumption, a Project Document for further involvement and assistance from UNIDO in the rehabilitation of EASCO and development of the UGANDA steel industry was prepared. The Project Document is attached as Annex XII.

Manning levels, training, supervision, maintenance, replacement of deficient or damaged equipment and inventories of spare parts were all subjects of discussion and suggestions to management.

The plant having been recently inspected by Danieli engineers the major items missing or to be replaced have been identified. Detailed lists of recommended spares for the continuous casting plant have also been furnished. Other lists are awaited.

Along with a justification for continuing, an assessment of the

cost of delay in finalizing the project was also prepared and heads of agreement for a tender document were prepared ag inst the possibility that Danieli would not be invited to undertake the work. (Annex IX).

At a meeting on 21st June at the Ministry of Planning and Economic Development a revised project profile, for inclusion in the national Rehabilitation Development Plan, was obtained. A copy is attached as Annex VIII.

C. Recommendations

1. The timing of further UNIDO advisory assistance must depend on when the Government's stated firm intention to proceed with the project can be realized financially.

While awaiting a solution to the financing of erection and commissioning of the plant steps should be taken to reduce expenditure to the minimum level necessary to maintain and safeguard the machinery and equipment. Care should be taken to preserve all technical documentation in safe storage.

- 2. A decision to proceed could entail a choice of options:
 - (a) Negotiate with Danieli.
 - (b) Accept an alternative offer (e.g. Taiwan).
 - (c) Seek tenders for the erection and commissioning.

Assistance from UNIDO will have to be tailored to fit the choice and details of the form and extent of assistance cannot be finalized until this is known.

It is clear, however, that the following activities need to be covered:

- (i) Supervision during erection.
- (ii) Study tours for senior management in similar mini- mill environments.
- (iii) In-house training of EASCO personnel by expert technicians.
- 3. Advisors should be attached to train management in the principal operational and maintenance disciplines e.g.:
 - (i) Planned maintenance programmes.
 - (ii) The establishment and maintenance of plant registers.
 - (iii) The recording and storage of technical data, drawings

1.1.1

- (iv) Production planning and control.
- (v) Quality control and assurance.

(vi) Cost control.

Additionally, EASCO will require help in departmental management in the main production areas e.g.:

- a) Steel melting.
- b) Continuous casting.
- c) Rolling.
- 4. UNIDO should undertake a review of all the investigations and reports, previously made, associated with the iron and steel industry of Uganda, it's dependant industries and it's sources of supply and raw material. The first objective of the review would be to consolidate the various reports to produce a national overall strategy for this important sector rather than a procession of independent and isolated studies. The review could be extended to include the P.T.A. region as a whole.
- 5. There is a recently re-stated request from the Ministry of Planning and Economic Development to undertake a "Pilot Iron and Steel Project at Muko" for which they request a reaction from UNDP. The cost of the project was estimated as US \$ 699,000 in 1989. The proposal should be reviewed and comment made to the Ministry of Planning and Economic Development in the light of it's conclusions and recommendations.



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION UCANDA

JOB DESCRIPTION DP/UGA/84/018/11-01/J13208

title

Expert in metallurgical plant rehabilitation

Duration

Two months, with possibility of extension of one month

Date required

As soon as possible

Duty station

Kampela/Jinja, Uganda

Purpose of project

To assist in rehabilitation of the East African Steel Corporation (EASCO) at Jinja.

Duties

The adviser will provide assistance to the preparatory works on the installation and commissioning of the plant by EASCO. In particular the adviser will be expected to

- prepare a manpower plan for the type and timing of supervisors (who will be provided by the equipment supplier);
- analyse and check materials and equipment available in order to determine whether they are sufficient for the work;
- establish spare parts needed to be ordered;
- co-supervise with the plant staff the civil work going on;
- in co-operation with the national counterpart, prepare a work plan for implementation of the rehabilitation indicating future assistance required by the Government from UNIDO.

Qualifications

University degree or equivalent in metallurgy, with at least fifteen years of practical experience in metallurgical plants.

Language

English

Background information

The Government of Uganda has recently intensified the recovery programme of the national economy. In the scope of this programme, rehabilitation of the industry has top priority second only to the agriculture sector. In this context, the existing steel industry has been given considerable importance as a basic industrial sector for development of the country's economy. The EASCO plant at Jinja, which is the only one steel producing plant in Uganda, is at present in deep coma and is to be revamped simultaneously being modernized in the scope of the rehabilitation project. During the months July to October 1989 a short-term advisory expert was assigned to EASCO. However, after the latest negotiations in April 1990 between Danieli, Italy which supplied the equipment worth US\$12 million and the Government of Uganda, there appears to be an urgent need for further advisory services.

EVENTS CONNECTED WITH DANIELI CONTRACT NO. 2388/82 FOR SUPPLY ERECTION AND COMMISSIONING OF PLANT

1.	Contract signed	16/12/82	
2.	Amendment 1	1/1/84	
3.	Contract came into force	15/11/84	۱۰,
4.	Amendment 2	19/11/85	
5 .	Original Completion (23 months)	10/86	
Ċ.	Amended completion (32 months)	7/87	
7.	Main Plant delivered	7/87	
8.	Amendment 3	7/8/87	
9.	Last items delivered (Oxygen, Nuts & Bolts & Strip)	11/87	
10.	Civil Eng. Drawings received by EASCO	11/11/87	
11.	Amendment 4	2/7/88	•
12.	Civil & Electrical Consultants and Quantity Surveyors appointed by EASCO	11/11/88	
13.	1st Civil Contract let	4/89	
14.	Civil Contract due completion	3/90	
15.	Last date for start of erection	3/90	
16.	2nd Civil contract let	3/90	
17.	Amendment 5	20/4/90	
18.	Civil Constrúction Complete	6/91	

ANNEX III

LIST OF REPORTS, STUDIES & PROJECTS DIRECTLY CONCERNED WITH EAST AFRICAN STEEL CORPORATION

		Ī	Date	
1.	East African Steel Corporation Preliminary Report - Madhvani	80	0/81	
2.	Appraisal of EASCO Rehabilitation Report Atkins and Partners	May	82 by	W.S.
3.	Project UGA/84/018	Feb	84	
4.	Beginning execution UGA/84/018 by UNIDO (14 months extended to 23 months)	May	86	
5	Market Demand Study - TESCO	May/June	87	
6.	Rehabilitation of EASCO - CENTROZAP	May/June	87	
7.	Metal Scrap Study - ATISA/ATKINS	June/Aug	87	
8.	Minutes Terminal Tripartite Meeting	Nov	87	
9.	Project Document XX/UGA/89/XX	Jan	88	
10.	Report on EASCO - BUCKSTEGE	Apr	88	
11.	General Manager's Progress Report to President of Uganda	Dec	88	
12.	Report on Assignment - J.K. HAWES	July/Oct	88	
13.	Report on Utilization of Tororo Magnetite - RHEINSTAHL GmbH, Essen	Dec	68	
14.	Mitra Project Document Proposal for Pilot Direct Reduction Plant at Muku (DP/UGA/89-/A/O1/37)	Mar	89	

OTHER REPORTS RELATING TO IRON & STEEL IN UGANDA

15.	Training Report on PTA Countries	Sept/Oct	89
16.	Report on Casement Group - ARKWRIGHT (UGA/89/801)	Jan/Dec	90

MONTHLY PRODUCTION AND REVENUE

<u>OXYGEN</u>

USHS.

Average, 400 Bottles

4,400,000

BOLTS & NUTS

Average 0.5 Tonne

780,000

KAMPALA WAREHOUSE

Rent Received

=

50,000

TOTAL

5.230.000

NOTE: This compares with a monthly employment cost for some 160 people of U Shs.25,000,000. Hence the Company is being supported by direct subsidy.

EAST AFRICAN STEEL CORPORATION 'IMITED

Manpower as per lune 1991

<u>lateurr</u>	obsertion of
Mechanical Engineers	4
Electrical_Engineers	1
Metallugists	2
Chemists	1
Mechanical Technicians	10
Electrical Technicians	6
Oraughts Men	1
Laboratory Attendants	1
Plumbers	.3
Foremen .	9
Machine Operators	7
Machine Attendants	17
Scrap Collectors	4
Accountants	4
Internal Auditor	1
Senior Accounts Clerks	. 3
Cashiers	2
Statistician	1
Store Keepers	2 2 2
Marketing	=
Purchasing (Supplies)	
Clerks	6
Personnel (Administration)	4
Supervisors	• 5
Typists	2
Drivers	, 6
Turnboys	2
Security	28
Compound Attendants	17
Canteen Attendants	4
Office Messangers	7
TOTAL	164

Suggested Production Manning

•	<u>Total</u>
Production Manager Secretary . Production planner & prodress clerk	1 1 1 3
Shift Work Per Shift	Total
1. Scrap handling - 2 Operators 2. Elect. arc fnce.(& casting) : Foreman " " " - 1 Supervisor " Operators 3. Casting - continuous caster- ! Supervisor " casting pits - 1 Supervisor " Operators 4. Rolling Mills(& preheating)- 1 Foreman Preheating furnace - 3 Operators Roughing & Cross Country - 1 Supervisor Roughing Mill 2 Operators Cross Country Mill - 5 Operators Continuous & Finishing Mills 1 Supervisor Continuous Mill 4 Operators Finishing Mill 3 Operators 5. Cooling Becs, Cutting and despatch 1 Supervisor Continuous Mill 5 Operators 6. Cranes 6 Drivers " " - 5 Operators 7. Transport (in works) - 2 Drivers " " " Attendants	6 3 3 12 3 15 1 ** 4 ** 3 9 3 6 15 3 12 9 3 15 18 18 6 6
8. General Labour 8 Labourers	24 197

** day work only

Note: - Details of maintenance manning to be worked out in consultation with experts during erection stage.

		23	Market	1	\$ v
	i sa			E 1.1	. £. 5 x
		25		-	12 12 13
		E	<u>&</u>		20 X X X X X X X X X X X X X X X X X X X
	12	I E	_ <u>\$</u>	<u> </u>	10 2 20
e entrant e la	35	2 X			2 2 2
2 727	7,20,2	V 8	ý		0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
		23			NA NA
3-3-			10		S - ~ ~
			96		ren del Directeoria. Tarone ria
र्जा हैं हैं		1 2	23		
1 28.9		4 3	<u> </u>	<u> </u>	5
S Z E		58		- 0	
Z				· · · · · · · · · · · · · · · · · · ·	4 5 C
3			<u> </u>	<u> </u>	Ž.
C V	पिल्ली		Ů.	3	Ž.
26	30				
12	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$				1 \$
45	PERSO	<u> </u>		<u>ئ</u> م	A C
		# .7 		<u> </u>	يا فوين
7		1	i in in in one. Tanii in		
Z		¥			
A A		TO STATE OF THE ST		60	5.5 60
X				20171VS	
Z ^t			Draen Preshessing	ROLLING	Weeksnea!
		igy	000	A STATE OF S	
		188		S. 4	- 3 E
	72	PROBUCTION MANAGEK	<u></u>	3 5	27 - C
<u> </u>	28	6-1		\$ 3	7 6 6 5
	NANASER		Planning & Control	147	B Chemical Laboratory
	125	202	· V	STEELPHEONE IN	E 81
		TECHNICAL SECHNICAL SECHNICAL			Netallung
	•	4.00 4.00 4.00 4.00			Net.
	•	Fire			76
	1	1 1	1 1 1 1 1	1 1 1 1 1	Roll

EXTRACT FROM AMENDMENT NO.4 DANIELI CONTRACT NO.2388/82

DATED 2.7.88

- 11. In the event of EASCO not being able to provide the civil works necessary to commence Erection of Equipment by 1st March 1990, Danieli shall refund to EASCO an amount equal to US\$ 450.000 and the contract shall be deemed completed.
- 12. EASCO reserves the right to ask Danieli to supply equipment/materials valued US\$ 450.000 in lieu of the refund of a like amount mentioned above. The cost of such equipment/materials shall be mutually agreed upon by EASCO and Danieli and will in no case be higher than the lowest price charged by Danieli to any other customer.

 EASCO may demand a certificate from the Auditors

of Danieli to substantiate the price. The equipment/materials shall be supplied as soon as possible after EASCO's request.

foglo / Sheer n O

AMENDMENT NO. 5 TO CONTRACT NO. 2388/82

Whereas Amendment no. 4 to Contract no. 2388/87 was signed on 2 July, 1988,

AND

whereas the said Amendment provided that if EASCO did not complete the civil works necessary to commence erection of the equipment by 1 March, 1990, DANIELI shall refund to EASCO US\$ 450,000.= and the Contract shall be deeemed complete

AND

whereas even if the contract is completed as foreseen in item no. 11 of the amendment no. 4 to the contract no. 2388/82 signed on 2nd july 1988, in the spirit of cooperation both DANIALI and EASCO wish to realize the successful completion and running of the steel plant at Masese in Jinja.

Now, therefore the parties hereto agree as follows:

The above mentioned amount of 450.000.= USD will be used for the supply of equipment/materials/training/ supervision of erection and commissioning but not for supervision to the civil works, overhauling and bolts and nuts plant startup, mentioned under items 7.0, 10.0 and 14.0 hereafter.

RENFIVED

15 JUN 139/



Uganda Development Bank

IPS Building : 14 Parliament Avenue : P.O. Box 7210 : KAMPALA

Telephone: 230740/6 · Telex: 61143 · Cable: Devbank

In any reply please quote No. I. . 13/48

6th June, 199

M/S East African Steel Corporation Ltd, P.O. Box 1023, JINJA.

Dear Sir,

Re: REHABILITATION OF M/S E.A. STEEL CORPORATION M

Following a discussion held at our offices on 17.5.91 attended by your:

- Mr. K.B. Tayebwa
- General Manager
- Mr. Tom Omninyo
- Chief Accountant

and our:

- Mr. F.J. Kasujja
- General Manager/Operations
- Mr. D.W. Musanje
- Manager/Industry
- Mr. H. Muteefu
- Assistant Manager/Industry

you were requested to prepare and submit a comprehensive project brief to the Bank covering the following aspects among others:-

- (i) Investment and financing plan
- (ii) The amounts, terms and conditions associated with Government investment in the project for importation of machinery and civil works.
- (iii) Detailed assessment of the project's local costs, associated with utilisation of the proposed loan funds to complete and commission the project.
- (iv) Working capital requirements and financing
- (v) Review of Danielli supply contract
- (vi) Copy of the Joint Venture Agreement between Government and Madhyani
- (vii) Projected cashflows over the required loan period
- (viii) Supply of raw materials including scrap

The Bank's reaction to your proposal will be given after the requested information has been received and reviewed.

Yours faithfully; UGANDA DEVELOPMENT BANK

> D. W. MUSANJE MANAGER/INDUSTRY

d Brassic Development	•
Dienates of Phoning so	the Prafile System

Proposed Projects for MP - Plancial Extinsion

Sead : 144 - BESTEE OF PLANECE

Project Gabe : 18-111) The Community Project Community of the Community o Taken the line

	į	i	=	=			
	j	į		=			
	٦	i					
	Š	=	-	:			
	¥E.	_ ;		=			
	=	إ		===			
	₹,	≈ !			•		
	١	1	£			٠. •	
		Ξ.			:	• "	
	f	إ					
	1	Ξ		•			
	LE3 .	•	•	•			
	=	Ξ					
٠.	Į	į					
	i	Ξ					
		!					
	Ī	불					
•	17.7	_[•				
	7744	¥					
	-			-			
	١	لِ	_				
	ļ	جم ا		٠.	-	•	
	E	ļ	•	·	٠.		
	2	3	 	• • •	•		
	122		•				
٠.	Ξ	Ē	:		: :	:	
					÷.		
•		ä	ŗ.	-	7		
•	-	Į	-		•	•	
		Š	7.	-			
	[:	ď			·	'n	
•	į	3		•	٠. :		
•	14 1	i					
	7111	4		ş.,	Ž,	•	
		<u> </u>					
		اٍ ا			•	,	
,:	Ħ			•			
	3						
	1	3	••	مرد			
3	į	.!			:	*	
	ă	ž			•	Ş	
•	•	٠. ٠		;			
}						•	
;		٠.	٠,	22	•		
		•	,	Ĭ,		•	
}		•		1971年 19		2	
			54	4 1	-	≖ '	•

•	ř	•	
:	-	•	
⊸.			
٠.		「A Manager of the Control of the	
•	<i>,</i> -	٠.	
7	•		
: .	٠.	٠.	. `
٠.	•	•	٠.
	Œ		٠.
•	3	•	•
· i		10	•
٠.			-
٠.	, ,	٠, ٠	
`÷`	• .	1	•
-:	• • •		
1,0	*	•.	
1	•	٠,	
-	٠.	:.	
٠	٠.		
۲.	•••	. •	
•		٠.	
	**		
٠.	•		
2.7			
3	1.	٠.	
₹.	٠,	•	
٠,٠		:	
٠.	·•;	•	
<u>~</u> _		·	
	٠.	. •	
	٠.	,	
3 :	*	•	
•	47		
		18	
7.1	. 7	,0	
٠.	•	1.	
٠.		• •	
	, .		
•			
•		•	
. •			
	- 1	Ι.	
	- 2	3	
	- 1	צ	
_	4	2	
2	-	•	
٠.	, :	E	
C :	9		=

				÷		
•	;•	÷				
1.336		<i>5</i> •3			D. C.	
					•	
9967	9007-31		:	•		
#2 · · · · · · · · · · · · · · · · · · ·	12.1670		·	•		
	=			31	13 LCA 14 1 WEB	2
	のでは、これでは、これでは、1900年である。これでは、1900年である。「1900年である。」では、1900年である。「1900年である。「1900年である。」では、1900年である。「1900年で	TOTAL CONTROL OF THE PROPERTY	900 1 900 1	00071 00071		12.00 (17

1.6111 1.6111

6.2469 11.28991.2459 11.2829	12,1636
	• •
• •	
	. 11
===	*
1,100 1,100 1,100 1,100 1,100	
777	
## ##	##
THE PIE	
11.01M	
1 1 1 1 1	12.100 11.100 11.100 1.101
स्थाना	80 E
e ž	• :
He - di bet injensitione Hi instruction 1974, Eister 1916	Pada Secred - 1-01-61 - 1717 - 0-00-60 - 50 1974 SCTIL PROS FEED SCTIL

tate: all freeze are to nillion of folted States bollace.

Print Date 21/06/91

The second of th

EAST AFRICAN STEEL CORPORATION LIMITED

Headings for Tender Document Conditions

- Tenderers must satisfy the employer as to their technical qualification to execute the work.
- 2. Tenderers will be required to visit the site and satisfy themselves as to the quality and sufficiency of the Civil Engineering work already executed.
- 3. Tenderers will be required to satisfy themselves as to the condition and completeness of the machinery and equipment to be installed. They should provide in their offers for replacement of missing or damaged items or components. A list of items known to be deficient or requiring replacement is available to assist tenderers but this is not to be regarded as complete or absolving tenderers from responsibility and making their own assessment.
- 4. The erection contract will include the overhaul of those items of old plant and equipment indicated in the plant schedule. All other items are new but have been on site since 1987.
- 5. Tenderers are required to include in their offers provisional sums for the replacement of all refractory materials which are considered to be unusable due to age deterioration.
- 6. Tenderers must include a time schedule for completion of the work of erection and commissioning and start-up of the plant.
- 7. Tenderers will be responsible for recruitment of all necessary skilled and unskilled personnel required for erection, testing, commissioning and start-up of the plant. The employment of Ugandan nationals, where appropriate, will be considered an advantage, but the successful tenderer will be entirely responsible for the performance of their personnel and will be required to replace any who are considered to be unsuitable or incompetent by the employer.
- 8. Tenderers must familiarize themselves with local conditions and all relevant laws and regulations of Uganda.
- 9. The supply of all necessary tools and erection plant will be the responsibility of the successful tenderer. This will include all transport necessary for their personnel and materials.

ANNEX IX (ctd.)

- 10. Customs duties and charges on imported equipment and materials will be the responsibility of the employer.
- 11. Tenderers should include in their offers a separate price for providing a management supervisory service for the first full year of operation. They should indicate the qualifications and experience of the personnel they propose to appoint for their task. As an indication only it is expected that the following activities will be covered, but tenderers should make their own proposals after visiting the plant:-

Steelmaking by electric arc process Continuous casting Rolling Mechanical maintenance Electrical maintenance Electronic maintenance

- 12. Tenderers will be required to deposit an amount of US \$..... by a confirmed irrevocable letter of credit, which amount will be repaid to all unsuccessful tenderers.
- 13. The successful tenderer will be required to enter into a contract and to replace the tender deposit with a performance bond in the amount of 10% of the contract value.

LEGRAMS: "ECSTATIC", KAMPALA DIRECT TELEPHONE Not.:

> MINISTER.....241529 PERMANENT SECRETARY 232759

GENERAL.....235051/4:

TELEX: 61117 ECONOMY UGA. IN ANY CORRESPONDENCE ON THIS SUBJECT PLEASE QUOTE NO: ______ED/C/2210

<u>Ann ex e</u>

MINISTRY OF PLANNING AND ECONOMIC DEVELOPMENT.

P.O. BOX 7086.

KAMPALA, UGANDA

7th June, 1991

The Resident Representative, U.N.D.P. **KAMPALA**

Dear Sir,

RE: PILOT IRON AND STEEL PROJECT

Early in 1989, the then Minister of State for Planning and Economic Development submitted a request for a Pilot Iron and Steel Project at Muko. The cost of this project was initially US\$ 699,000. To date, we have recieved no reaction from UNDP regarding the proposal.

We would be grateful to know UNDP's position regarding this submission as the project is of high priority in our National Development Planning.

We look forward to hearing from you.

Yours Faithfully,

A. LABEJA

FOR: PERMANENT SECRETARY

JUN 1991

A. <u>Estimated Cost of Erection</u>. <u>Commissioning and Supervision of Start-up</u>.

			<u>Total</u> US \$
1. Repl	acement of missing or s and materials:-	damaged	
b) M	efractories echanical Spares lectrical Spares	170,000 60,000 60,000	290,000
2. Erec	tion, Commissioning,	Start-up:-	
b) Te	ools and Equipment echnical Supervision rection labour	500,000 1,300,000 450,000	2,250,000
3. Reconditioning of Old Equipment (including spares):			300,000
	Site training of Technicians during Erection & Commissioning:		200,000
5. Const	umables for Commission 12 months operations	ning and after Start-up:-	1,250,000
15% (Contingency :-		4,290,000
			4,934,000
<u>by Un</u>	<u>of Technical Managem</u> <u>IIDO</u> (Ref:- Project Do Vork Plan)	<u>ent Assistance</u> ocument Budget	1,200,000
			6,054,000

ANNEX XI(ctd)

Notes on Estimates

Notes on Estimates

- Items 1(a),(b),(c); 2(b); 3; 4 are based on an offer by Danieli dated March 1991.
- 2. Item 2(c) is based on an estimated requirement of approximately 50,000 man hours to complete the erection and commissioning with a labour force of 64 local employees and 22 expatriates.

ROLLING MILL (from site of Pre-heat furnace)

NEW GEARBOX FOR ROUGHING MILL AND OLD MILL STAND (in centre of picture)



NEW CONTINUOUS MILL STANDS

OLD CROSS COUNTRY MILL STANDS

END VIEW STEELWORKS BUILDINGS.

(Prepared foundation in foreground)

NOW PRE-HEAT FURNACE



ARC FURNACE

(New shell and charging baskets in centre of picture)

GENERAL VIEW OF
ROLLING MILL (Snom area
of cooling bods)





VIEW OF MELTING
BAY (from site of
Continuous Caster)
ELECTRIC ARC FURNACE
(lest background)

Substantive Comments of UNIDO on the Final Report on Project DP/UGA/84/018 Rehabilitation of East African Steel Corporation, Jinja Prepared by Mr. G.J. Polson, UNIDO Consultant

The consultant was fielded to check the status of the construction work of the rehabilitation project at the East African Steel Corporation (EASCO) in Jinja, and to provide guidance and assistance in the preparation of the forthcoming phases. Due to delayed clearance of the consultant by the counterpart, at the time of Mr. Polson's arrival the civil works were almost completely finished. The quality of the works is good and the buildings and foundations are ready for start of commissioning of equipment.

The condition of the equipment was also checked visually and the result in general is positive. The findings of the supplier's (Danieli SpA) expert were the same. Some parts and the refractories are missing or became unusable as a result of the lengthy storage.

The status of documentation is not satisfactory. Due care should be taken to proper storage and handling of drawings and documentation. Loss or damage will cause serious deficiencies at a later stage during operations and maintenance of equipment.

The most serious problems are related to the financing of the next phase - the commissioning and start up services. The delays of the construction works and the negative outcome of the negotiations with Danieli SpA lead to substantive overruns of the project costs. The calculations of the consultant show the following cost estimate of the funds still required:

Convertible currency		<u>US\$</u>
1.	Replacement of missing or damaged parts	290,000
2.	Erection, commissioning, start up	1,800,000
3.	Site training of personnel	200,000
4.	Consumables for commissioning and 6 to 12 months of operation after start up	1,250,000
5.	Contingency 15%	531,000
		4,071,000

Parallel to the start up activities, the international consultants of the proposed training and managerial package will review the situation of the iron and steel sector of the country and come up with recommendations and action plan on the utilization of the domestic iron ore and natural resources for the iron and steel industry.

The above benefits would certainly justify the expeditious implementation of the project. Thus it is recommended that the Ugandan Government actively pursue raising the necessary funds through different channels. UNIDO is ready to assist the Government in the various aspects of the project.

Metallurgical Industries Branch
Department of Industrial Operations