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18305

Distr.
RESTRICTED

IO/R.149
14 May 1990

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

ORIGINAL: ENGLISH

1/P

ESTABLISHMENT OF A CLOTHING UNIT IN THE DEPARTMENT
OF SUPPLIES TO ORGANIZE AND SUPPORT TECHNICALLY
LOCAL MANUFACTURE OF SCHOOL AND OTHER UNIFORMS

US/BOT/87/097/11-02

BOTSWANA

Technical report: Sewing machine maintenance and repair*

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

Based on the work of Steven J. Hollingworth
Maintenance and Repair Expert

Backstopping officer: J.P. Moll,
Agro-based Industries Branch

4/12

* This document has not been edited.

V.90-84449

ABBREVIATIONS.

CTA.	Chief Technical Adviser.
UNDP	United Nations Development Programme.
GTM	Garment Technologist/Management Expert.
M&R	Maintenance and Repair Expert.
P&P	Purchasing and Procurement Expert.
UK	United Kingdom.
R.S.A.	Republic of South Africa.
UNIDO	United Nations Industrial Development Organisation.
BEDU	Botswana Enterprise Development Unit.
P	Pula.
IFS	Integrated Field Services.

Exchange Rates;

During the period of this mission, 15 January 1990 to 8 April 1990, the following exchange rates prevailed.

US DOLLAR 1 = P2.08

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INTRODUCTION

The purpose of the mission was to assist the newly established Clothing Unit of the Department of Supply, Ministry of Finance and Development Planning. The Unit functions to coordinate and technically support local manufacture of uniforms for schools and various Government agencies.

Attached to the Department of Supplies the M&R expert was to:

- assess the garment manufacturers' needs for sewing machine repair and maintenance services;
- outline the operations of a central repair, maintenance, training and advisory facility;
- train the counterparts and provide direct assistance to the industry;
- conduct training courses in basic machine repair and maintenance and develop the counterpart staff to be able to continue the courses in the future;
- prepare a mission report.

This report describes the different aspects of the mission and the results achieved.

WORKSHOP COURSES.

To date, eight basic sewing machine maintenance workshop courses have been held, six in Gaborone, two in Francistown. The courses have been designed to teach the basic principles of the plain lockstitch machine, which is the most popular machine presently in Botswana.

Various problem solving techniques are taught, which directly address the problems encountered by pupils on this type of machine.

The courses place emphasis on the practical aspects of machine maintenance and easy to understand literature is supplied for future reference.

Pupils are also encouraged, when possible, to bring their own machines which have problems, to the workshop courses. Repair procedures can then be explained, and the work carried out under supervision. This benefits the class as well as providing "hands on" experience of real breakdown situations for the counterparts.

Problems with a small number of manufacturers have been some managements refusal to allow employees, who have attended the workshops, access to machinery, even when the machinery is malfunctioning and causing production loss. Efforts have been made to increase the confidence of the trainees and these entrepreneurs, who thankfully are a small minority.

One intermediate machine maintenance workshop has been held, specifically to ascertain the type of course material best suited to the pupils needs.

The information has now been obtained, and will be used to plan the next level of training courses. These cannot commence until sufficient experience on more complex machinery has been gained by the two counterparts.

LOCAL INDUSTRY.

There are presently, Government orders being produced by local businesses, and this has given the maintenance and repair personel the opportunity of direct access to the industry for practical experience.

Some manufacturers have been very receptive to offers of assistance and have seen immediate benefits, particularly the higher quality of finished products and the improved reliability of the machinery.

This relationship is important for the continued progress of the maintenance unit because the very problems it was designed to address are dealt with.

The workshop courses will continue to be held at the IFS Garment Estates, BEDU, Dept. of Commerce.

This partnership has also been successful due to the cooperation with the estate managements, who have realised the value of the basic training, now being given to the small businesses which BEDU help operate.

Much of the technical literature, so far obtained, has been from local manufacturers, who understand the importance of a central source of information which may be tapped when required. This has been a convenient way of gathering service manuals and parts books, but it will not cover comprehensively the future needs of the Department, therefore purchasing of literature not yet available in Botswana will be necessary.

Problems have been encountered regarding some manufacturers perception of the aims of this part of the project, with many, in the initial stages, thinking of it as a repair service. These people now understand that this impression is very shortsighted and realise it is a training and advisory service which will be of more use to them in the future. This point must continually be emphasised to prevent confusion.

Soon to be installed, is a workbench for the Maintenance and Repair Unit at the Department of Supply.

Together with the tools and equipment already provided and the literature obtained from the private sector, the framework on which to build a comprehensive training and repair workshop facility will be complete.

Being the first of it's kind in Botswana, it will provide assistance never before available in the country and will help the industry in its efforts to become less reliant on R.S.A.

The industry as a whole, has difficulty obtaining spares for machinery, due to the lack of suppliers in Botswana. Practically all equipment and parts come via Johannesburg through a handful of agents, and costs of certain items are well beyond their true market value. Although this reliance will still exist, at least repair work may now be conducted without the long arduous and costly trips to Johannesburg previously necessary, even for simple machine faults.

TRANSPORT.

Some problems were caused by the experts being present simultaneously, restricting individual flexibility, so important on a mission of such a short period. This situation improved as the UNIDO vehicle became more available.

The Department of Supply transport has been consistently problematic. Even when workplans have been submitted to the transport officer, well in advance, vehicles have not arrived, have had to be shared with staff wishing to travel elsewhere and have, on occasion been unsuitable in size, for the number of people to be transported. This has caused discomfort, but above all, unnecessary delays to, experts, counterpart staff and other members of the department. Drivers have been available, but no vehicle and visa versa., two hour lunchbreaks have been experienced by, the two counterparts, myself and a class of eight pupils.

Over the period of the mission, many man hours have been lost and only the flexibility and patience of the counterparts and myself has enabled the planned work to be done.

With the ever increasing workload of the Clothing Unit in the Department of Supply, I feel the transport situation must be reviewed and if necessary, more vehicles acquired to enable it to operate efficiently in future.

COUNTERPARTS AND STAFF.

Despite their lack of practical experience on machinery, David Garesago and Mothusi Maruping have coped well with the new tasks presented to them, and their technical abilities have improved a great deal since the beginning of the mission.

Much work has still to be done, but the levels achieved so far are excellent, considering the short training period.

Teaching others is obviously a new challenge for both counterparts, but planned workshops, to commence later in 1990, will give them ample opportunity to expand their capabilities.

Along with the other counterparts in the clothing unit, David and Mothusi will attend courses covering pattern drafting and grading, supervisor training and production planning. These will provide further insight into clothing manufacturing and equip them with new skills, likely to help them deal, on a more even footing, with people in the industry.

The staff of the Clothing Unit have been very cooperative, from providing help when transport difficulties were encountered, to encouraging the manufacturers of present government orders to approach the Maintenance and Repair Unit for assistance with technical problems, therefore providing valuable experience for Mothusi Maruping and David Garesago.

The staff who've attended the Basic Machine Maintenance Courses, whilst working in their other capacities, have now been able to advise on basic machine care, this demonstrates the value of the Department as a vehicle with which to impart repair skills to the industry.

CONCLUSIONS.

The objectives of the mission have been achieved, machine maintenance workshops have been held successfully and operations of a central repair, training and advisory facility have been outlined.

The counterparts are now trained to provide direct assistance to the industry as planned, but in addition, some experience on the more advanced forms of machines has been gained. This type of experience must continue for some time however, before teaching at intermediate or advanced levels is possible.

It is clear, improvements need to be made regarding the transport and telephone systems at the Department of Supply. Communication through the inadequately sized switchboard is often difficult, with long delays frustratingly frequent. The Clothing Unit is now expanding in both size and workload, therefore, reliable transport for personnel must be made available to ensure its success.

With this part of the project now on line and functioning, much interest has been generated and expressed from all quarters of Botswana. BEDU workshops, training and aid organisations, such as NORAD and the Botswana Christian Council, have benefited from help given so far, as well as the clothing industry itself. All parties have been very appreciative, underlining the projects success.

A list of persons met, most of whom were instrumental in the success of the mission is at Appendix 1

A LIST OF PERSONS MET DURING MISSION APPENDIX 1

Department of Supplies.

P.M. Mokgosana.	Director of Supply.
M.G. Rakwena.	Deputy Director of Supply.
R.I. Bimbo.	Regional Director of Supply.
Miss C. Nwasi.	Uniform Coordinator.
Miss G. Dichabeng.	Assistant Director, Uniform Coordination Unit.

Department of Commerce.

D.Tsheseko.	Assistant Director, IFS
Dwa Hla Hla Aye.	Chief Technical Officer, IFS Gaborone.
P. Van Dyke.	Chief Technical Officer, IFS Francistown.

UNDP.

Dr. P.Tissot.	Resident Representative.
P. Sweeney.	Assistant Resident Representative.
L. Oriani Vieyra.	Programme Officer.