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ESTABLISHMENT OF A KNITWEAR FACTORY IN LOBATSE

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BOTSWANA

Technical report: Wool knitting*

Prepared for the Government of Botswana
by the United Nations Industrial Development Organization,
acting as executing agency for the United Nations Development Programme

Based on the work of Theresa Murphy
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* This document has not been edited.

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INTRODUCTION:

The Consultant arrived in Botswana on 9th November 1988 and left on 11th December 1988.

Terms of reference were provided in the job description and a work plan was drawn up on arrival with the Factory Manager to comply with this.

This report outlines the application of this work plan and the Consultant's views on some aspects of the project, particularly relating to design. Some recommendations for improvements are put forward.

THE FACTORY AND EQUIPMENT:

The equipment purchased had got some inherent problems some of which has been overcome but some also remain. A gauge difference between Protti Intarsia Machines (2.5N.P.I.), (which are most suited for doing fancy fronts) and the other Immea (3.0 N.P.I. gauge) causes technical problems in matching panels.... fronts of Intarsia to backs from the Immea. A proposal has already been made to purchase a 2.5 gauge machine and this would invariably solve the above problem.

The new replacement linking machines are now suitable to the plant.

With regard to the final pressing of the garments it would have been preferable to have purchased steam presses with a top head rather than simple steam tables.

STAFF SKILLS:

Considering that the factory is in operation for only just over a year satisfaction must be expressed at the level of skills at this point in time. In some areas, most notably make up, skills existing are as good as would be expected in Europe. However caution must be expressed about over expectations bearing in mind that the average Motswana has had no experience in industry and taking into account the traditional lifestyle of the community. It will take some years to build up in-house self sufficiency and there could be negative consequences in trying to establish a "stand alone" unit too quickly. There is still lots of room for improvement and vigilance in knitting and quality control in the factory (no more than can be expected in any other) and full localisation has to be progressed with caution.

YARNS:

The Knitwear Project has been experiencing difficulties in acquiring deliveries of wool from the Spinning Mill due to present reorganisational problems within Tiro Ya Diatla. It

is not intended here to comment on those difficulties but to concentrate on yarn qualities.

It was very wise to discontinue using Karakul fibre, the yarn being completely unsuitable for knitwear garments.

The normal Corriedale Wool is soft in its natural state, however some of the coloured yarns have a hard feel due to the current dyeing process. For commercial acceptance more attention will have to be paid to applying softener to this wool where it is dyed, or alternatively applying a more appropriate softening agent in the milling process after knitting.

Because of the recommendations by the new potential owners.... Botswana Development Corporation (BDC) to source yarns elsewhere, and also as potential for improving scope in intarsia the Project already had sourced other yarns most notably tweed.

Since tweed wools is tied in with the fashion trends for Autumn/

Winter 1989/90 the Consultant supported this and recommended colours for purchase.

Unfortunately due to shipment delays this tweed yarn had not arrived before the Consultant's departure. However a range of Intarsia garments has been completed in Corriedale and will be remade in the correct yarn on its arrival.

WORK UNDERTAKEN:

As laid out in the terms of reference supplied the Consultant became involved in critically examining procedures used and quality control in the factory. The factory was engaged in making orders for;

- 1) a client with work in progress for already established styles.
- 2) a client ordering a new style, where new sizes had to be determined.

New standards of make-up and sizing specifications were introduced and monitored throughout production. Instructions and assistance were given to staff to assist them with future trends;

- 1) standard sizes for conventional garments.
- 2) standard neck lines and shapes.
- 3) possible alternative shapes requested by potential customers - e,g set-in sleeve, raglan, square set in.
- 4) standards expected by international markets.

A very close working relationship was established with make-up staff, knitting area staff and the knitting mechanic.

There was a concentration by the consultant producing a range of garments for Autumn/Winter 1989/90.

This was processed by interpreting international fashion trends to the particular equipment used by Tiro Ya Diatla. This is in line with the recommendations of the Feasibility Study. The groups of designs worked on, as shown in the photographs, were deliberate in covering the different aspects of expected trends. The combination of Intarsia and structured effects, most notably in combination were not only done to exploit technical advantages of the Project but more importantly to translate fashion trends.

Some basic styles were included and these had been lacking already particularly in the area of Intarsia.

The Intarsia equipment had previously been under utilised. However now with the imminent arrival of Tweed wool from the U.K., large strides may be expected in this area, with possible further investment required.

Swatches and garment specifications were drawn up and a future design plan was discussed with the Factory Manager.

CONCLUSIONS AND RECOMMENDATIONS:

The Project has excellent potential. Although standards are satisfactory in all areas it would be more than foolish to withdraw expert support too quickly.

The wool although soft in natural form used has room for improvement in handle particularly in the dyed form. Improved softening may be done at the dyeing process, or in milling.

Discrepancies between gauges of machines (2.5 and 3.0) need to be sorted out for future efficiency.

International design consultancy plan for future years requires to be addressed. This is not something which can be quickly localised.

A major marketing drive is required in the very near future to get Tiro on a firm footing. Increased productivity can only be achieved by acquiring orders in the first place. With good marketing the company has potential for a good future.