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

US/BOT/90/151/11-03
(formerly US/BOT/87/097)

BOTSWANA

Technical report: Assistance in garment
manufacture*

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

Based on the work of C. Whitehouse
Garment technologist

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* This document has not been edited.

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ABBREVIATIONS

CTA	CHIEF TECHNICAL ADVISER
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME
GTM	GARMENT TECHNOLOGIST/MANAGEMENT
P&P	PURCHASING AND PROCUREMENT
M&R	MAINTENANCE AND REPAIR
U.K.	UNITED KINGDOM
CV	CURRICULUM VITAE
UNIDO	UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION
BDF	BOTSWANA DEFENCE FORCE
BEDU	BOTSWANA ENTERPRISE DEVELOPMENT UNIT
BRIDEC	BRIGADES DEVELOPMENT CENTRE
UB	UNIVERSITY OF BOTSWANA

Exchange rates;

During the period of the mission, March and May 1991,
the following exchange rates prevailed.

US\$1 = P2.08

1. INTRODUCTION

The purpose of this mission was to continue the technological help and assistance in garment manufacture within the newly established clothing unit of the Department of Supplies, Ministry of Finance and Development Planning. The objective of the unit is to coordinate and support technically, local manufacture of uniforms for various government agencies. Attached to the Department of Supplies, the Garment Technologist was to;

- devise and conduct training courses in
 - garment production management
 - pattern cutting and grading
 - quality control
 - production planning
- provide direct assistance to garment manufacturers
- train his counterparts in garment technology
- assist in the selection of candidates for sewing machine technician fellowships
- preparation of a final mission report

This report sets out the activities completed and the results achieved during the mission.'

2. FACTORY VISITS

The factory visits continued during this mission although this time the main emphasis was once again on the workshops. During the factory visits it is very pleasing to be able to see some of the training that we have provided put into practice from the highly technical items like grading to the mundane use of our recommended home made pattern hooks. The Department of Supply is now about to issue a full range of specifications and size charts to each and every supplier so they will now have the opportunity to put into practice all of training we have been doing for the last two years. To be able to successfully supply the warehouses in the future they will have to use their new-found knowledge of;

Production Planning, now that we have had approximately fifty people through our workshop on this subject there is more chance that the suppliers can set and keep to delivery dates instead of being hopelessly behind, in some cases two years. Plus we now have more officers trained to recognise the fact of suppliers setting unachievable delivery dates and having noticeably unbalanced sections causing bottlenecks, cash flow problems, hold-ups and the inevitable delay in delivery.

Work Study and Method Study, to make sure that they have the right method and time allowance for each operation to keep within the costing and have a better chance of being profitable while meeting the requirements of the Department.

Pattern Making, Cutting and Grading, originally the suppliers bought one pattern in South Africa which they added to or decreased all round by one centimetre to 'grade' the pattern up or down for sizing purposes. This of course distorted the pattern and garment as it got larger and smaller. This practice does not seem to be in evidence now as a large number of people

have attended the pattern workshops and now have the knowledge to make their own patterns using a size chart and specification supplied by the Department. This will make the supplier much more professional in their approach to the garment business but the Department for its part, now it has started to issue the size charts and specifications, must be very diligent in making sure that no item is given out for manufacture without them. Once the original size charts and specifications have been put into use and tested to the satisfaction of the end user (it must be strongly emphasised that every size chart must be rigorously tested) then it is very easy to add and adapt them to cover any and every item.

Quality Control, I believe that the success of this particular area lies solely in the hands of the officers who have been instructed to perform the factory visits and garment checks. There is no doubt in my mind that there has been a significant improvement in quality levels. However I also feel that there are still not enough visits being made and consequently not enough garments being checked. Now that the end users have more faith in the ability of the indigenous entrepreneur then more and more garments are being made locally as was the original plan but not enough emphasis is being put on the factory visits and quality could fall back. If that should happen the end user will go back to the original suppliers and the orders maybe lost to this country for ever. When a company is in production of Department contracts they should be visited at least once per week as during the course of a week quite a lot of garments can be finished and packed whereas an early check could save everyone concerned a lot of time trouble and money. The Department must now insist that all manufacturers follow every specification exactly, if they wish to change it in any respect they must have written permission to do so.

3. QUALITY CONTROL.

Now that the work is being examined on the premises of the supplier and any mistakes pointed out and dealt with on the spot the quality of the garments being delivered to the warehouses has very much improved. This has as many advantages for the supplier as it does for the Department as there are far less returns, garments are not spending time going backwards and forwards or being unpicked and re-sewn etc. The cash flow of the suppliers should have greatly improved due to these changes making them a much more viable concern. Some suppliers are still having difficulties in meeting the quality standards due to their intransigence. Having had little pressure put on them in recent times about quality with no in-work checks and few returns it was easy to become complacent. Now all suppliers have to follow the new size charts and specifications, have good patterns, accept quality control visits from trained officers and meet delivery dates more accurately. Naturally this has proved quite traumatic for all concerned.

Nearly everyone has made the transition successfully and those that have grasped and used the new technology are progressing very well. There is still a long way to go and the way forward from here has to be through the officers mainly through paying more visits to the suppliers than at present and educating them further in some improved methods, increasing their awareness of acceptable quality levels and instilling more confidence into them with support and back-up when it comes to style changes and new types of garment. I am confident now that there is now enough expertise available in Botswana to tackle any garment that has been brought to my attention, including lined jackets, with some help from the Department. I have checked samples being produced recently for the new contracts and have been pleasantly surprised by the quality and size standards and have found little to complain about.

4. WORKSHOPS.

During this mission we have completed several manufacturing workshops and machine maintenance courses totaling ten in all. The manufacturing workshops were executed in Gaborone and in Francistown and yielded 198 student days bringing the total for the project to 1720 in all. The workshops were reasonably well attended and a great deal of enthusiasm was shown some of the people have now attended every course. The qauality control course was run in its entirety by a counterpart Mrs Montsamaisa Ramahobo and I am completely confident in her ability to do so and it now only needs for her to introduce some of her own personal documentation to the course. I would also like to make the suggestion that Mrs Fashert Molobi take the Production Planning course as her own as she has been on that particular course with me and shown a marked aptitude and liking for it and that would leave Miss Dichabeng with just the one subject to teach, Work Study.

12 new stopwatches have arrived which has helped in the running of both the Work Study and the Production Planning courses where they have proved to be invaluable.

A positive step forward that the Department could instigate itself would be a one day seminar on costing as I get the distinct impression that too much of this very important area is done by old fashioned ideas or just plain guesswork. This would have to be for the entrepreneurs themselves not their employees unless they were directly employed in the costing procedure.

We have completed one advanced pattern cutting and grading workshop during this mission run by Miss Beryl Phala in Francistown. The object of running an advanced course was to up-grade some students from the basic course to working from size charts and specifications as the department is now issuing.

5. EQUIPMENT.

The only equipment we are still waiting for is the small items for the mechanics and the much larger and more expensive equipment for the laboratory. This is now of some concern as the extension to the project is more than halfway through.

The books for the technical library which were to be purchased by the Department have still not arrived and this could cause quite a large problem for the counterparts when the experts leave as all the books in present use are owned personally by the experts who will of course be taking them with them.

The new word processor is getting very little use, one of the main uses it was purchased for was to do the specifications and size charts which will eventually be the backbone of the Department and which are probably the most important part of the whole project. As of now they are not being done on the word processor here but are sent somewhere else for typing with the result that we have a long lead time to get the work done and it is of very poor finish with letters, words, lines and even sentences missed out. A decision should be taken quickly about this machine and its roll in the uniform section.

The twelve new stopwatches have arrived and have been put to very good use on two of the workshops.

We are a little bit worried about the effect that the local storms could have on the computer and the word processor, we have already had problems with the computer on a number of occasions so we have suggested that two 'surge boxes' be purchased to prevent this happening. We have not received them yet but would hope to get them before or during the visit of the maintenance expert so that he can oversee their installation.

6. CONCLUSIONS.

During this ninth visit we successfully completed the planned work schedual. During the mission we had full cooperation from all of the Department of Supply staff and the personnel in the factories in Gaborone and in Francistown. The main emphasise has been on workshops, specifications and size charts.

One of the unit staff, Miss Metha Ikaneng, is on a short three month stores management course in England and four more officers are due to go in early July. With this in mind I think there should be more concentration on factory visits with quality checks.

Mrs Benusi Jallow has now re-joined the uniform unit, she was one of the original members and did a one year course in England.

Three members of the unit and a fourth person from purchasing have recently completed a very successful study tour covering mills and exhibitions in the U/K and Germany.

B.E.D.U. have once again been very helpful to the project in letting us use their premises for some of our workshops. They are now successfully running their own courses and we are keeping in close touch to avoid duplication.

At present there is a problem with fitting large or awkwardly shaped people with uniforms. The new size charts now going into service have an increased size ratio and should therefore alleviate some of the problem. The rest could be eliminated by adding a clause to the manufacturing contract making the supplier responsible for a certain percentage of 'special measures' at an increased price therefore removing the problem from the Department. Now that more garments are being produced locally this becomes feasible as the person concerned could visit the factory direct.