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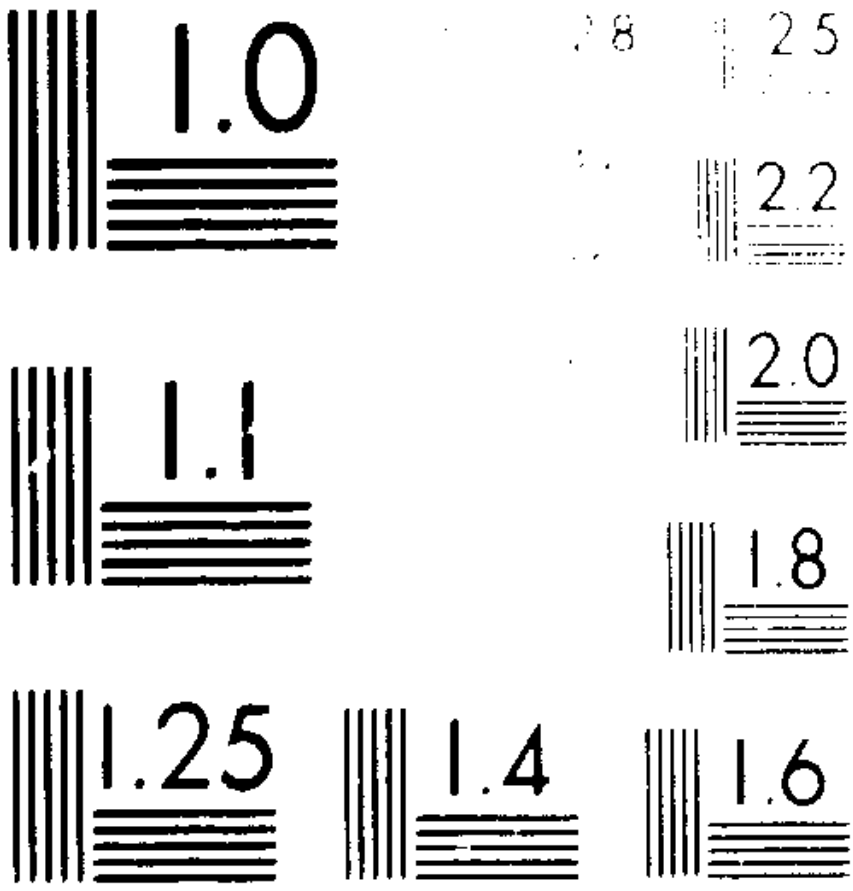
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SURVEY OF THE CAPABILITIES OF THE MOROGORO SHOE COMPANY

Prepared for the Government of United Republic
of Tanzania through the
United Nations Industrial Development Organization

Project No: DI/URT/82/80[illegible]

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Morogoro, Dar-es-Salaam
November, 198[illegible].

This survey is a result of the activity carried out by a team of footwear manufacturing experts with the participation of:

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Dr. Géza KÁVÁ	- economist, marketing expert
Mr. József [illegible]	- mechanical engineer, foreign trade expert
Dr. Dénes [illegible]	- footwear technologist, shape building expert
Mr. István [illegible]	- footwear technologist, production control expert

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List of abbreviations

1. Monetary units

US $ - United States Dollars

Tsh - Tanzanian Shillings

US $ = 9,80 Tsh /November, 1982/

1 Tsh = US$ 0.102

2. Mesurement units

m^2 - square meters / 1 m^2 = 100 dm^2 - decimeters/

sq.ft - square foot

1 sq.ft = 0.0929 m^2

1 m^2 = 10.76 sq.ft

kg - kilogramm

lb - pound

1 lb = 0.4536 kg

1 kg = 2.2059 lb

to - metric ton / 1 to = 1,000 kg/

3. Special abbervіations and signs

/./ full stop separates decimal fractions from whole parts

/,/ comma separates thousands

'000 - thousand /of..../

M - million /of..../

... - from-to /till/

mc - machine

sp - special

4. Countries

FRG - Federal Republic of Germany
UdSSR - Union of Soviet Socialistic Republics
UK - United Kingdom
USA - United States of America
URT - United Republic of Tanzania

5. Organizations

BMKI - Bőr-, Műbőr- és Cipőipari Kutató Intézet
Research Institute of Leather, Artificial Leather and Footwear Industries /Hungary/

BORA - the trade mark used by the Tanzania Shoe Company and also used to indicate this factory

CIPEM - Consorzio Italiano per la Erezione del Calzaturificio di Morogoro

DUNA - Duna Cipőgyár
Duna Shoe Company /Hungary/

FAO - United Nations Food and Agricultural Organization

IBRD - International Bank for Regional Development

INTERAG - Interag Co.Ltd.
Hungarian Foreign Trade Company

ITALMACCHINE - Italmachine Plant S.p.A. /Italy/

MSC - Morogoro Shoe Company
NDC - National Development Corporation /Tanzania/
OECD - Organization for Economic Co-operation and Development

SIDO	- Small Industries Development Organization /Tanzania/
TALI	- Tanzania Leather Associated Industries
TSC	- Tanzania Shoe Company /TSC/
UN	- United Nations Organization
UNDP	- United Nations Development Programme
UNIDO	- United Nations Industrial Development Organization
WB	- World Bank

2. Personnel titles

CTA	- Chief Technical Adviser
TTL	- International Team Leader

3. Others

CIF	- Carriage, Insurance & Freight /to an arriving port/
FOB	- Free of Board /at a departure destination/
IDC	- Industrial Development Corporation
PUR	- polliuretan
PVC	- poli-vinil-chlorid
TR	- thermoplastic rubber

1. INTRODUCTION

1.1. Background information

Tanzania is one of the East-African countries having considerable livestock; according to the most recent estimations the livestock consists of approximately 16.5 million cattles and 5.1 million goats and sheep. Taking into account off-take rates applicable to the local conditions and estimating loss of collection, this amount of raw hides and skins can produce 12 million pairs of leather footwear.

Realizing this important natural resource the Government of Tanzania makes considerable efforts to develop the leather and leather products industries: three tanneries have been established within the last 15 years, a large shoe factory and a medium sized leather goods factory were installed and a further board plant is under construction in Morogoro. Further plans are under consideration to further expand the leather products industry, besides the new factories one in Dar-es-Salaam, producing leather, gloves and plastic shoes for the local market, which are sold in their own retail outlets under the trade mark BOR..

The overall capacity utilization in the tanning sector is about 30 %, while in the shoe industry that is well under 50 % /% in Morogoro/. The main problems in the footwear industry are the lack of know-how, operational training and experience, poor marketing and maintenance and the technical/production management methods used.

As the two major shoe manufacturing units under the control of TAN are facing serious difficulties, the Government of Tanzania requested urgent UNIDO

assistance to carry out a technico-economic survey of the existing capacities and elaborate recommendations on actions to be taken in order to solve the problems mentioned above and suggest the necessary conditions required for considerable increase of productivity in this sector.

The Government of Tanzania /on recommendation by UNIDO/ selected Mr. Otto Klützer as the CTA for this project and UNIDO subcontracted our Institute through INTERAG to make the survey and recommend on the future steps, which would lead to a feasible solution of the training and technical know-how acquisition.

1.2. Objectives

The team of Hungarian Experts consisting of four specialists was supposed to work under direct supervisions of the CTA. According to the Terms of References the BMKI was expected to supply the following services:

1.2.1. Survey report on the technical capabilities of the MSC to produce acceptable quality and quantitiy of footwear for export markets, taking into consideration the production capabilities of the TSC for the local market.

1.2.2. Plan of actions, specifying the training needs and programmes for the training of skilled workers, supervisors and management to provide the MSC with the necessary work force.

1.2.3. Suggested product range for the MSC with samples of footwear, detailed costing and production planning for short-, medium- and long-term basis. The footwear range has to be based on mainly locally available materials and only components and raw materials, which are allowed to be imported under the present regulations and financial conditions, should be indluded.

1.2.4. Suggested marketing strategy for the export and identification of possible export markets.

1.3. Arrangements

In order to meet the UNIDO's requirement and utilise experiences gained in running a shoe factory of similar size a team of experts was created, which had the following features:

- special tasks were assigned to each teammember, namely
  - . marketing and economic aspects,
  - . range building and technical preparation of the production,
  - . production and quality control,
  - . labour and management training,
  - . equipment maintenance;
- two experts were called in from the DUNA shoe factory, who had over 2o years experiences in marketing, economic and technical control of large manufacturing units and who are today in key positions in this factory;

- the team coordinator had wide experiences in application of advanced training methods used in the footwear industry of industrialised countries as well as in investment preparation and execution with special references to developing countries;

- an expert in foreign trade participated also in the field work in order to advise on commercial and contractual aspects of recommendations to be worked out.

The subcontract called for 3.2 man-months field work plus 0.8 man-monts additional services, which was to be rendered in the home country. The five experts departed from Hungary on 1st November 1982; one of the team members returned on 13th November 1982, while the other four arrived in Budapest on 25rd November 1982 /i.e. the actual service provided was 3.5 man-months including travel and 3.16 man-months excluding travel/. The representative of INTERAC stationing in Dar-es-Salaam and assisted the team in administrative and organisational activitie.

After having discussed the objectives and the work-plan with the CTA of the project and with the ITL of the project DP/URT/78/010/, also taking into consideration the background information and guidelines received by the team coordinator during his briefing in Vienna /27th October 1982/ it was decided, that the team had to move to Morogoro on 5th November and return to Dar-es-Salaam on 16th November 1982. It was agreed upon with the CTA that the team should concentrate on techno-economic aspects of the project, while the CTA would deal mainly with managerial questions and higher level industrial policy problems involved.

1.4. Services rendered

The team of experts discussed the main problems and difficulties of the local shoe sector with the members of the UNIDO team serving under the project DP/URT/78/010, then made a short survey in the Tanzania Shoe Company and its retail outlets in Dar-es-Salaam. A detailed sudy concerned with the investment, starting up, recent production training of personnel, marketing and management of the Morogoro Shoe Company was carried out on site. Several official and informal meetings were arranged with local authorities, the UNDP, UNIDO and WB representatives, as well as with diplomatic and commercial missions of different countries delegated to Tanzania. /The detailed and complete programme carried out, is attached as Annex 1; the list of important persons met in Tanzania is found in Annex 2/.

1.5. Acknowlegments

Our high appreciation must be stated for the professional and especially managerial assistance, which were provided by Mr.Otto Klötzer CTA, who created good working conditions and with whom our team was is full understanding. A considerable contribution to this report was given in form of background information by the UNIDO team leader by Mr. Birger Svensson ITL, who personnaly assisted in overcoming all difficulties we met. Without the excellent communication received in Morogoro Shoe Company the report would have lacked of reliable data; thank for Mr. Saidi Mwilima, Mr. E. Kasinini,

Mr. E. Rutaihwa, Mr. Kibona. Mr. Morotha and their colleguas we were able to collect most of the information required. We would like to express our special appreciation for Mr. Manzoer wellfar officer, who did his best to provide us with all the necessary working, transporting and living conditions in Morogoro.

2. FINDINGS

2.1. Market requirements

The footwear consumption in the industrialized countries is in the region of 4.o...5.5. pairs per capita, in the centrally planned economy countries that is 3.o...4.5 pairs per capita. Taking into consideration the climatic conditions and traditions of developing countries the minimum required consumption should be around 1.0 pair per capita. Computations based on the most recent production statistics and estimation of retail data show, that the actual sonsumption in Tanzania is about 0.3 pairs per capita. This is considered to be a very low consumption figure even under present conditions.

Marketing studies made by local factories and institutions, as well as the opinion of the UNIDO team of project DP/URT/78/010 - mainly based on researches completed by the marketing expert - indicate a real possibility of selling 5 million pairs of leather shoes in Tanzania without any difficulties and probably without any influences on the local retail and, consequently, on ex-factory prices. /Considering further canvas and rubber/plastic footwear trading the overall consumption even in this case would not achieve o,5 pair per capita./ The BORA's output is nearly 1.0 million pairs annually, the privat sector and the shoe manufacturing units controlled by SIDO add some 2.0 million pairs yearly, so there is enough room for expanded supply of leather footwear to the local market.

Having paid visits to BORA shoe shops in Dar-es-Salaam the team of experts has to confirm those informations concerned with the extremelly high retail prices found in Tanzania. The following data are to prove this statement:

	Selling price Tsh/pair
Jogging shoes	350...500
Clogs	400...600
Canvas shoes	180...360
Moccasins	450...700
Ladies shoes on PUR soles	380...480

Owing to the sortage of supply the footwear actually is distributed in Tanzania, rather than marketed.

The quality of the locally available footwear is rather poor, the styles are out of fashion, the materials used are of low grades. The main reasons for this situation are of the monopoly of BORA in selling shoes, the unsufficient supply of fashion information and lack of foreign exchange required to introduce new lasts and injection moulds. In spite of the quality problems and the low living standard of the local population the domestic market seems to be fairly big, which stress the necessity to increase the Tanzanian shoe industry's output.

The import in to the industrialized countries has increased significantly during the past two decads - due to the high local costs /mainly because of the high wages/ and the cheaper supply offered by a number of developing contries. When considering

the export possibilities of a newcomer to the world market the following points have special importance:

i/ the highly fashionable shoes and some other categories /safety boots, sports shoes etc./ are still manufactured for the domestic market in such large quantities in countries like USA, UK, FRG, France, Austria etc.;

ii/ the biggest exporters of fashion leather shoes to the world market are Italy, Spain, Mexico, Brazil, Philippines, Greece, Yugoslavia, Czechoslovakia, Hungary and Romania, while on the canvas and rubber footwear market the manufacturer has to compete with shoes supplied by Korea, Taiwan, Honkong, Pakistan;

iii/ most of the industrialized countries are exporters and importers at the same time /e.g. FRG, France/;

iv/ in a number of developing countries significant efforts are being made to increase their export potential in this subsector /e.g. Algeria, Tunisia, Ethiopia, Morocco, Egypt, Indonesia, Argentina, Colombia/;

v/ some of the African and Asian countries lack of or have no sufficient local footwear industry, therefore they are potential importers /e.g. Burundi, Rwanda, Zaire, Madagascar, Saud-Arabia, Kuwait/;

[illegible]/ the [illegible] important importers on the world are [illegible] and USSR - their total import is more than [illegible] million pairs/year.

All the above underline [illegible] the possibility [illegible] entering into that wide market on one hand, but point out the heavy competition on the other hand. Taking in to account the increased population growth, the expected improvements in the standard of living in developing countries and the structural changes taking place in the [illegible] industry sector of the developed countries, it can be expected that the world demand for footwear will increase, and that the production capacities of footwear will continue to move to the [illegible]. However the [illegible] that are available only for those [illegible], who are able to produce [illegible] of the required quality, follow the fashion trends and keep reliable and short delivery times - at reasonable prices.

[illegible]. [illegible]

According to the [illegible] based on [illegible]'s statistics [illegible] had the following resources in [illegible]:

	Livestock population	Off-take	Available hides and skins	
	/million/	/[illegible]/	/million/	/[illegible]/
Cattle	[illegible]	[illegible]4	1.5	[illegible]
Goats	[illegible]	[illegible]	1.9	[illegible]
Sheep	[illegible].8	[illegible]	[illegible].8	[illegible]
Total:	[illegible].4		[illegible].5	[illegible].1

The annual growth rate [illegible] estimated as [illegible] %.

A survey made by the UNIDO team under the project [illegible]/[illegible]/7[illegible]/[illegible]10 shows that the actual collection of hides and skins in the country was at 6[illegible] % for hides and [illegible]

for [illegible] comparing with the estimated earlier figures. In other words:

the theoretical material availability is [illegible] sq.ft
the theoretical tannery finishing capacity is [illegible] sq.ft

In spite of this, due to problems in collection, the tanneries are short of raw materials. [illegible] related to [illegible] of raw hides and skins [illegible] away from the country in other ways. Thus only 30 % of locally available hides and [illegible] of skins were made available for the [illegible] [illegible] small surface [illegible] sq.ft/hide and [illegible] sq.ft/skin/, the poor quality of the goat and [illegible].

[illegible]

	Total capacity	[illegible]
	[illegible]	
Soft leather [illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
Sub total soft leather	[illegible]	7.[illegible]

The vegetable tanned [illegible] leather manufacturing capacity of the local tanning industry is about [illegible] /mainly concentrated in [illegible]/.

The installed capacity of the tanneries would be sufficient for production of approximatelly 7.8 million pairs/year footwear with leather upper and about 1.0 million pairs/year with genuin leather soles. Since the tanneries face to problems concerned with supply of raw hides and skins, imported chemicals and spare-parts and electric power, their overall capacity utilization is only 47 % in 1982, which consequently decreases their supply to the local shoe factories.

The prices on local leather are too high: in average they are twice as much as the world market prices /see Annex 3/. This circumstance is probable due to the low capacity utilization, but creates rather unfavourable conditions for export.

Owing to the quality and properties of collected raw hides and skins the finished leather available from the tanneries are mainly embossed and full grain nappa and goat skin, corrected grain hides, suide leather and lining. The best quality of soft leather is supplied by the Moshi Tannery, but also acceptable finished leather comes from the Morogoro Tannery. The sole leather produced in Mwanza is rather thin and its abrasion properties are not rather poor.

Cotton and similar raw materials are available in Tanzania, therefore the local textile industry is under development. As a part of the Morogoro Industrial Estate a canvas mill has been installed just next the shoe factory building, which is to provide the former with upper materials for cheap type of footwear.

All the other materials, fittings and chemicals /e.g. thread, dye-stuff, adhesives, compounds for PUR, PVC an TR, rubber and crepe etc./ are to be imported from Europe. The import duties range from 40% to 160 %.

2.3. Labour and staff

At the recent stage of development Tanzania is not in the position to provide the majority of its citizens with working opportunities. Particularly there is no problem to recrute people for the shoe factory. Experiences gained in the Morogoro Tannery and the information received from the responsible managers of the Morogoro Shoe Company show that plenty of people /raw labour/ is available in the town - waiting for jobs today.

The education programme implemented by the Government of Tanzania is very efficient; the result is the abundance of young people who have completed the primary school /7 years/. A reasonable number of students are students studying in secondary schools /4 years to achiev the so called Form IV an 2 more years for Form VI/. Young persons who have completed highest education show potential and understanding how to carry out their tasks, they are also responsive for new ideas.

2.4. The Tanzania Shoe Company

The Tanzania Shoe Company was established by Bata more than 40 years ago in order to provide the local population with footwear at reasonable prices. The shoes produced here are being marketed under the brand-name BOMA and sold throughout the whole sale and retail outlets controlled by the Company itself.

The theoretical capacity of the plant, located in Dar-es-Salaam, is 4 million pairs of canvas and leather shoes, plus 3 million pairs of beach sandals / i.e. injection-moulded plastic footwear/ yearly. The actual output is much lower: during the first 7 months of

1982 the number of shoes manufactured was around 1.0 million pairs. The factory is assisted by technical management provided by a Pakistanian firm according a special agreement, but only the posts of the Production Manager, the Chief Designer and a Chemical Expert are executed by the contractor.

The working conditions in TSC are difficult - mainly because of the old and run down machinery and the building. The quality of footwear is very low - but this has only slightly negative impact on the economical situation of the factory, since /being the only organized retailer in the country/ the high prices dictated by them compensate to a great extent the losses of the manufacturing processes. Although UNIDO experts assigned to the factory are making a significant contribution to the improvement of range building and equipment maintenance, the product range and the productivity are still far below of the international standard.

The Morogoro Shoe Company

3.5. The Morogoro Complex

A detailed study was made in 1977 by international experts for the WB, which declared the feasibility of creating and industrial estate comprising a tannery, a canvas mill, a leatherboard plant, a footwear factory and a leather goods plant. The Morogoro Tannery was established using Bulgarian expertise /in fact still two Bulgarian specialists are working there/ and became operational by 1980. As the next stage of the project a footwear factory of estimated yearly output 1.8 million

pairs of leather shoes and the same quantity of canvas shoes was installed by an Italian firm named ITALMACCHINE.

The project of the shoe manufacturing plant had a number of rather weak points:

i/ the size of the factory selected was much too big /total capacity for producing 2.0 million pairs of leather shoes and 4.0 million pairs of canvas shoes yearly/ - the optimum size of such plants is considered in industrialized countries 0.5...1.5 million pair/year;

ii/ the selected plant size obviously was to lead to other problems:

- recruitment and training of labour having no experiences in any industrial jobs were to require a longer period of time. While the project envisaged 30 %, 60 % and 90 % capacity utilization for the first three years of operation respectively, only 1.0 %, 2.4 % and 5.5 % were achieved, and even these quantities were mainly substandard.

- It is doubtful that the local staff could have been trained in three years to take over the complete technical management even if such contract would have been well formulated and signed with an experienced and serious company and delivered efficiently; the management contract conducted with ITALMACCHINE did not have very much chance to succeed;

- the raw and auxiliary materials supply was not possible in that quantities as required without significant actions directed toward to indrease the reliability of the deliveries from the tanneries near to their installed capacities; especially securing funds for imported materials and improved hide and skin collections;

iii/ the targeted export ration /85 % of production/ was far too optimistic for such a country and a brand new factory, which had no traditions in shoemaking /therefore was unknown to the world market/ and where the raw hides and skins were of lower quality grades;

iv/ the WB study considered the OECD and some Near--East Asian countries as possible markets for footwear manufactured in Morogoro at US $ 9.10/pair average price /at 1977 price level/:

- this price was not acheivable even for those European countries /e.g. Portugal, Greece, Yugoslavia, Hungary etc./ which where established exporters and had long experieces in this sector,

- the 80 % the total production meant minimum 1.08 million pairs of canvas shoes to be exported, which was more than optimistic plan having the heavy competition from Far-East and the competitive prices on the world market;

v/ the location seemed to be justified by the complex idea /having the leather and canvas supply from the neighbouring factories/, but one should consider the differences in costs of transporting raw materials and shoes - since the later is less economic and needs more care -, when the export shipments may be delivered only from Dar-es-Salaam or Kilimanjaro, where suitable facilities are available only in Tanzania;

vi/ the production costs and the local shoe prices were well underestimated /e.g. leather shoes' price was Tsh 62.25/pair, while a pair of such footwear is sold ex factory for Tsh 2oo...400 today in Tanzania/;

vii/ the average imported material consumption was estimated for 1982 as US $ 1.60/pair, which might be close to the todays reality - but only for moccasins made of goat upper and leather soles at a reasonably good quality level, while e.g. cavas shoes consist of US $ 2.27 jogging shoes US $ 3.36, sandals US $ 2.68 value of imported materials /see also table 1/

2.6. The plant realisation

The MSC plant was installed in 1980 and was to start up immediatly.

The site preparation and arrangement have no majos weak points, but the building construction selected does not fit to the local conditions. The tannery and the canvas mill were built by using a pillar constructions with walls of brick, the two story shoe factory has steel pillars and alauminium walls. The building has no ventillation system, no solvent exhousting network,

the distribution system of compressed air and electric power are also weak. The workshops are very hot during the daytime, and although being only in 5th year age the walls show significant signs of corrosion, the roof leaks when raining.

The equipment delivered by CIEM, a consorcium formed by ITALMACCHINE especially for this project, had a total value of US $ 7.5 million. In general the production machines are of good quality and high productivity, mainly bought from various Italian shoe machinery manufacturers, howerer some equipment come from Spain and FRG /there are 191 different machine types from 25 different manufacturers/. The governing idea for collecting the supplied machinery probably was to equipe the MSC for a wide variety of products and to provide all necessary means for a very flexible manufacturing programme, which would be near to the range exported by Italy to other industrialized countries /not by one specialised export but a complete sector of a country/.

A thorough survey of equipment carried out by our team led to the following conclusions:

i/ the plant is well overequipped in general, since almost all the manufacturing lines were considered to be able to produce a variety types of shoes using different technologies /stitch-down, stuck-on, McKay-sewing etc./;

ii/ the machine types selected and delivered in certain cases do not fit to the local conditions /e.g. BIMA integrated workplaces for reinforcing operations, SAGITTA PC 15 R high frequency moulding machine, FERRARI two colour

direct injection moulding machines etc./ or the respective operations could be performed without them /lining trimming, some finishing operations, adhesive apply etc./;

iii/ the machine park is unbalanced: some equipment are not sufficient /e.g. there are only 5 pulling over and lasting machines, 8 sole laying presses, no counter conditioning and very old construction of toepart conditioning equipment etc./ or missing complet by /e.g. last manufacturing and maintenance machines/, at the same time others are too much /e.g. heel nailing, heel-seat paunding, edge folding, reinforcing etc. machines/ or not needed at all /e.g. 2 photoelectronic leather surface measuring machines/;

iv/ the selection of machine types seems, like it was made on ad-hoc basis, since equipment were available from other Italian suppliers of the same or even better quality for the same or sometimes cheaper prices /e.g. ATOM clicking machines, COMELZ edge folding machines, CAMOGA splitting machines, CERIM lasting equipment etc./;

v/ most of the sophisticated machines were bought at not low but still reasonable prices, while small equipment were supplied in unjustified big quantities /e.g. finishing equipment, buffing machines/ and/or for comparatively high prices;

vi/ the price may be only one of the factors taken into consideration when selecting machines for a new shoe factory; among the others are the services provided by the manufacturers, the auxiliary material requirement, the working reliability, the supply of spare-parts, the physical duration, the skill-level required for running, function/costs ratio: if all these had been studied carefully it would not have led necessarily to such a high share of Italian machines;

vii/ it is remarkable as well, that no special machines were delivered for the canvas shoe manufacturing /e.g. string sewing, insole stitching machines/ and for maintenance.

The total value of spare-parts delivered by CIEM was only 5 % of equipment, which is usually suggested to be around 10% for a new plant. /The cost of equipment consisted of 6.99 % for erection and 7.14 % freight charges added to the FOB prices./

The infrastructure of the MSC is acceptable: the plant is located 4 km away from Morogoro having about 45,000 population, there is a sufficient water- and electric power supply /the still missing two transformers needed for the full capacity operation are being bought/, the road to Dar-es-Salaam is in good conditions, telephone lines are installed. What missing is a telexline /they are using the telex connected to the Morogoro Tannery/.

The factory does not have a firm or even a provisional production programme. Although the respective responsible managers of MSC and TSC have had an official meeting and

agreed upon a slight specialization of the two manufacturing units, the former's technical staff was not able to elaborate a suitable product range. After nearly three years of unsuccessful operation it is still emphasized, that the MSC should produce shoes for export and the BORA for the local market - and that is hoped, that this plan can be realised.

Most of the difficulties, which used to turn up during the starting up period were supposed to overcome by subcontracting ITALMACCHINE for assistance in management and marketing. According to the management agreement the contractor provided a general manager, a production manager and two managers for production supervision for a period of 3 years: they had to run the factory and train the local managerial staff. The ITALMACCHINE took the responsibility of selling 35 % of the actual production in export market - which has never been done. The planned rumeneration consisted of a lumpsum US $ 350,000.- plus 2.5 % os FOB selling price of exported shoes plus 3.0 % of the gross profit /before taxes/. The contract has expired without exporting any shoes and without having built up any marketing organization and channels.

2.7. Training completed

As a part of the engineering agreement signed by NDC and ITALMACCHINE a training programme was envisaged. According this 24 Tanzanian personnel were to be trained in Italy for 6 months each and 10 non Tanzanian expatriate personnel for 2 months each also in Italy. The training fee was a fixed sum of US $ 300,000.- plus the trainees' expences concerned with travelling to and staying in Italy.

The training record kept very neatly in the MSC shows, that 24 students were trained in 1978 in Italy for a period of 9 months /3 months language + 6 months professional/. Interviews made with a number of participants of this training programme strengten the opinion that the trainees learned not too much in Italy - partly becouse of the communication problem, and partly due to the rather short time available. Most of these fellows had no pervious experiences in shoe manufacturing, but after their return to Tanzania they were expected to train the local labour. There is nothing surprising in the depressive result of such a training - it simple could not work.

The MSC makes remarkable efforts to train the local staff and recrute highly educated personnel /e.g. they had 26 students an various diploma courses and colleges in 1982/, but that will help only at a general middle--management level. Very little professional know-how concerned with design, pattern making, technology, production control, quality control and marketing of footwear has been accumulated until now in Morogoro. Furthermore there are no informatieon sources /journals, technical periodicals, books, brochoures etc./ are available in the factory, which would serve as abasis for selfstudying.

2.8. Management structure

The number of employees of the company was 635 in November 1982 /the planned total number of workers required for the full capacity operation is 1760/, out of which 429 were engeged directly in the production.

The staff structure was as follows:

	Number of staff	Share /%/
Gen.manager's office	4	1.9
Administration	91	44.2
Finance	18	8.7
Supply	27	13.1
Marketing	20	9.7
Production	10	4.9
Engineering	36	17.5
Total staff	206	100.0

A new organisation flow chart was proposed recently, which attempted tc contribute to a better cooperation within the factory. Though the financial and administrative management seemed more or less well arranged, the technical part was a bit neglegted /maybe becouse of the unsufficient quantity of trained personnel avalible for these activities/. The main problem areas the followings:

i/ there is no organization and/or personnel dealing with the technical preparation of the production;

ii/ the design and patter making department works almost without control and has no information for range building;

iii/ the marketing department is expected to handle the whole business concerned with exports - without siutable communicational and organizational conditions and authority;

iv/ the maintenance and the tool making /cutting die manufacturing etc./ are not receiving enough attention.

2.9. Production statistics

The production figures verify the points made and oriticized above:

	Actual production	Planned output /WB study/	
	/pairs/		/%/
1980	20,000	1,200,000	1.6
1981	57,362	2,400,000	2.4
1982 /until sept./	132,591	3,200,000	5.5

The quality of shoes produced so far is very poor /there are some 10,000 pairs on the stock, which are rejects/. The main products are jogging shoes, training shoes, clogs and safari boots and a few moccasins.

According to the top managemenet of Morogoro Shoe Company among the main reasons for this low production are the shortage of foreign exchanges for imported materials and in-sufficient supply of leather from the tanneries. This, however, is obviously only part of the problems.

2.10. The working pattern

A special attention was paid to the actual working methods used at varions levels of the company management and some interesting aspects were identified.

The marketing is almost equivalent today with selling the shoes. What is interesting, that is the factory used to produce a few hundreds or thousands pairs on tis own and than tries to sell them. During the two previous years the BORA sold most of the footwear from Morogoro, but that agreement was terminated mid 1982. One of the marketing officers has returned recently from a trip, on which he managed to sell 12,215 pairs of shoes for Tsh 3,820,475. for various retailers and whole salers /e.g. men safari boots size 39-44 for Tsh 325.- /pair, clogs size 39-42 for Tsh 420.- /pair/.

An attempt was made to export footwear to Burundi. The offer for a pair of men shoes made of corrected grain leather and PUR sole US $ 28.66 - the buyer's counteroffer US $ 11.47 minus 18 % duty and freight - which was accepted by the MSC. The same figures for a pair of safari boots US $ 18.57 and US $ 7.43 respectively. This shows how unrealistic the Tanzanian prices are and the lack of market information at each level.

There is no planned range-building in the company. The chief designer /one of those, who were trained in Italy/ creates new models without any fashion information, data on prices and capacites.

Costing is made for each style manufactured. The material requirements are determined close to the international standards, but the overhead components are extremelly unproportional: e.g. several costing sheets indicate Tsh 40.50/pair administrative overheads/excluding financial costs/ and Tsh 60.40 /pair depreciation. The ex-factory prices are usually set by guessing rather than based on market researches.

The supply of materials depends on import licences, the productions in the local tanneries and requisitions given by the production department. Supply officers lack informations regarding the local possibilities to obtain auxiliary materials and also not informed about the international prices. It happens freyuently, that the production department requires a new supply of finished leather to bebrought within such a short time, which is impossible to perform by the tanneries.
/The typical dilivery time offered by local tanneries is one months./

The production control system is weak, the production planning involvs too much administration. There is not an elaborated organization flow-chart for these activities and there is no sound ideas concerning the planning of design, pattern making and technical preparation of the production.

Urgent steps should be taken in order to strengten the maintenance and diemaking in the MSC. Some 31 machines are lack of manuals /many others have one, but written in Italian only/. Most of the production machines have never been used, covered by dust, the first signs of corrosions has appeared, in a large number of machines the adhesives dried in. About 5% of the equipment are broken and hardly could be repaired. From many machines small components /e.g. switches, indicator lamps, timers/ were taken away. Equipment stored in the ready goods stock are in especially bad conditions.

3. RECOMMENDATIONS

The MSC has been established, large amount of funds have been invested for the infrastructure and initial training of staff and workers. The working capital of the company has been exhausted without reaching more then about 5% of the originally projected production capacity and no real wey has been made in export sales. The findings in the previous chapters has analysed some of the mistakes made and the weakness of the company structure.

The ovjetive of the further work and the recommendations made and presented in this chapter ha vebeen to try to find a feasible solution to correct these problems. The rehabilitation programme presented has been based on as realistic assumptions as posible and the product range has been designed in taking considerations to the local aconomic constraints and material availability, as well as realistic training programme for the staff and workers. These recommendations intend to indicate and initiate actions oriented toward the earliest possible improvement of the difficulties the MSC and the Government are facing to today.

The volume of our finding has no direct relations with the time and efforts used for the analysis. On the contrary: the activity of the expert team was concentrated on elaborating alternatives of a feasible solution and suggesting a plan of actions, which would lead to utilization of the installed capacity - provided the conditions required /and also indicated on the following pages/ will be met.

The following recommendations and conditions linked to them focus chiefly on the technical and economical aspects of the problem-package; more general and higher level recommendations are elaborated by the CTA and set out in his report.

3.1. The most urgent action to be taken is the conservation of the installed and stored equipment - disregarding whether they will be moved or kept for the gradual increase of the production. All of the production machines need cleaning, greasing, lubricating /some of them even require disassembling to performe these operations/ and protection against rust and dust. Without such a maintenance procedure the equipment should not be switched on, in other case brakages will occour. Most probable non of the machines could be sold for toher local manufacturers and the majority of the machine would get ruined within oner or two years staying in the same conditions they are. It is, therefore, strongly recommended that a special task team be created from the best mechanics and electronics available under the leadership of an experienced maintanence engineer; this team has to be provided with all the necessary materials and requested to conservate each machine within the shortest possible period of time /they should be released from their present jobs and angaged full time with this task/. As options may be considered to employ either a local company dealing with machine maintenance or a foreign firm having experiences in shoe machinery manufacturing and installation.
/Such companies are e.g. USM in UK; ADLER, SCHÖN, SANDT, ALBEKO in FRG; SIDECO in Italy, ANVER in France; SVIT-INVESTA in Czechoslovakia; KAEV-INTERAG in Hungary; SKOMAB in Austria./

3.2. There are large quantities of footwear sizes from 43 through 45 laying on the stock of the MSC, becouse the produced size range was not compatible with the actual demand. This shows that neither the shoe industry, not the trading organizations or agents have information

about the foot sizes and widths of the local population. It is recommended to carry out a foot measurement programme in order to obtain objective antropometric data, establish size systems and ranges for different age, ethnic and geographic groups of the local population and prepare lasts which would fit better. Such a survey provides the whole shoe trade with information about the most marketable ranges, on the other hand creates much better wearing conditions for young people /especially children/ and it prevents development of footdeceases caused by unsuitable, nonfitting, inproperly designed footwear.

The following institutions have wide experiences in foot-measurement: CTC in France, SATRA in UK, TNO in the Neatherslands, PFI in FRG and BMKI in Hungary - one of them is suggested to contract for undertaking such a programme.

3.3. Since the shoe factory in Morogoro has been installed having the given machine park, as the forst option such a product-mix and its implementation schedule was elaborated, which provide a profitable operation, when the criteria of feasibility is the positive foreign exchange balance.

3.3.1. When selecting the suitable <u>product mix</u> for the following constraints have to be taken into account:

i/ the quality and the quantity of the locally available finished leather;

ii/ the capacity of each technological sub-processes computed at the acheivable level ot utilization in Tanzania;

iii/ the developable skills of local labour having no traditions in shoemaking;

iv/ the local and international demand for different types of footwear;

v/ the local cost components /leather prices, duty on imported materials etc/;

vi/ the product range and quantities supplied by BORA at its full possible capacity.

As a result of optimizing the product mix the following production programme is suggested for MSC /see also Annex 5/:

	'000 pairs/year	%
canvas shoes	950	26.4
jogging shoes	220	6.1
clogs on wooden sole	200	5.6
safari boots	450	12.6
men and children sandals	400	11.1
moccasins	550	15.3
ladies fashion sandals	330	9.2
conventional shoes	500	13.8
TOTAL	3,600	100.0

This product-mix features the followings:

- it fully utilises the direct injection moulding capacities in three shifts,

- it utilises the last turning machines' capacity for wooden soles manufacturing,

- it provides the maximum possible cheap canvas shoes for the local population,

- the remaining assembling /lasting, making and finishing/ capacities are used for moccasins, fashion sandals and shoes with mainly leather soles, which are oriented for export and provide the maximum added value,

- the programme fits to the achievable outputs of each production line of the factory.

/Further justification of the recommended range will be set out on the following pages./

3.3.2. The <u>added value</u> in terms of foreign exchange was studied for the suggested product mix, as well as for each shoe type separetly. First thorough computation of ex-factory prices of such footwear was carried out on the base of production cost components used in industrialized /particularly in European/ countries. The Annex 4 shows the costing sheets elaborated this way for a number of styles recommended; the ex-factory prices /indudind freight and profits/ would be:

	US $ / pair
safari boots	13.24
moccasins	16.84
conventional shoes	16.65

Estimating the CIF prices in a similar manner for all types indicated above, then deducting the import duties and freight costs, as well as 13 % disdount for shoes intented to be marketed in industrialized countries /owing to the lack of reputation, traditions and well established brand name of Tanzanian footwear in those markets/ the achievable FOB prices were calculated. On the base of differences between these prices and the costs of imported materials required /taken from Annex 5/, taking also into consideration of the requirement of different markets the shoe types were ranked and a probable share in the total export was given to each one/all these data are displayed by Table 1/.

Unit: US $/pair

	CIF prices in industrialised countries from local manufactures	[illegible] for Industrialised count.					[illegible] to neighbouring countries				Imported material Consumption +
		Duty /[illegible] /	Freight	Discount/[illegible] /	Ex factory price	Share in export [illegible]	Duty /[illegible] /	Freight	Ex factory price	Share in export %	
Canvas	4.50	-	-	-	-	-	1.35	0.6	2.55	3	2.27
Jogging	5.80	-	-	-	-	-	1.74	0.6	3.46	8	3.36
Clogs	4.70	0.84	[illegible]	0.61	[illegible]	[illegible]	1.41	0.6	2.69	9	1.03
Safari	13.24	[illegible]	[illegible]	[illegible]	7.14	6	3.70	0.6	8.67	12	2.36
Sandals	[illegible]	-	-	-	-	-	1.80	0.6	3.60	8	2.68
Moccasins	16.84	3.03	[illegible]	[illegible]	10.4	7	5.05	0.6	11.19	18	1.43
Fashion sandals	[illegible]	1.76	[illegible]	[illegible]	[illegible]	1	[illegible]	0.6	6.26	9	2.18
Conventional	16.64	[illegible]	[illegible]	[illegible]	[illegible]	4	4.99	0.6	11.05	13	1.63
TOTAL					[illegible]	10			7.42	80	2.11

+ Taking into account [illegible] / [illegible] / US $ 7.65 100 %

Thus about 20 % of the total export may be oriented to industrialized country, while the remaining 80 % should be sold in other African and Asian countries. The most beneficial types are the followings:

	Imported material consumption	Added value in foreign exchange	
	/%/	/US $ / pair/	
		for Europe	for Africa and Asia
Moccasins	15.2	8.97	9.74
Leather shoes with leather soles	19.6	8.66	9.42
Safari boots	28.8	5.58	6.31
Ladies fashion sandals	31.6	-	4.08

The average FOB export price for shoes would be US $ 7.65 / pair /if the calculated ratios may be realised/; the average import material consuption would be US $ 2.11 / pair.

3.3.3. The quantity of footwear to be exported was determined on the base of a break-even analysis:

- the total amount of foreign exchange required for manufacturing of 3.6 million pairs shoes yearly US $ 7,596,000

- the minimum quantity of export, the foreign exchange revenue of which would compensate the expenditures involved by importing materials pairs/year 992,941

In order to earn some surplus foreign exchanges on shoe manufacturing in Morogoro /which might be used for repeyment of the IDA credit for instance/ 1,200,000 pairs/year /33 % of the planned total output/ is recommendes to export according to the distribution shown above.

3.3.4. For further computations costing sheets were completed for each type of footwear. Representative styles were selected partly from those shoes being manufactured in Morogoro, and partly from the range having been produced in DUWA. The prices on materials are either valid local quotations or calculated at the world market level and increased by 70 % duty. The labour components were determinated at double direct time consumption in order to cover the lower productivity and wage-taxes, which might be imposed. These costing sheets along with drawings displaying the representing styles and indicating their possible variations are attached in Annex 6.

3.3.5. It is strongly recommended to implement this production and export programme gradually, as shown in Table 2. The suggested implementation schedule has five phases - each of them recommended to be planned as one year /a quicker tempo would need much more

Canvas	350	650	7
Jogging	100	200	3
Clogs	70	120	1
Bata	200	300	4
Sandals	-	120	1
Moccasins	-	120	2
Fashion sandals	-	-	
Conventional	-	-	1
TOTAL	720	1500	2

ementation			Targeted export	
3	4	5	'000 pairs	H [illegible]
n '000 pairs				
750	900	950	36	0.092
770	270	220	96	0.332
600	200	200	132	0.340
400	450	450	216	1.821
750	350	400	96	0.346
250	450	550	300	3.292
-	150	330	120	0.745
00	230	500	204	2.218
700	3000	3600	1200	9.186

international assistance in training and starting up/. The main features of this schedule are:

i/ the targeted total output is 90 % of the installed capacity, which gives room for changes in product mix if the market so requires;

ii/ only one or two new types are introduced in each phase - easing the training and stamina build-up processes /the only exemption is the first phase, but these types are already being manufactured today in Morogoro/;

iii/ the increases of quantities from one phase to the other are compatible with the starting-up capacities of the respective production lines;

iv/ there is no export envisaged for the first and second phases, however the marketing activity should begin at this stage.

3.3.6. The economic analysis of the recommended product mix, marketing strategy and implementation schedule is attached in Annex 7. The total production costs in the fifth phase are Tsh 498,500,000.- having the following components /Annex 6.1/:

- factory costs	89.2 %
- operating costs	94.8 %
- proportional costs	94.6 %
- direct materials	74.4 %
- direct labour	3.5 %

Working capital required is Tsh 144,300,000.- /Annex 6.2/, out of which Tsh 4,600,000.- cash in hand /Annex 6.3./ at the targeted output.

3.3.7. The Annex 7 shows the revenues received from local and export sales, the amount of foreign exchanges required for imported materials and the subsidy in local currencies to be given to the Morogoro Shoe Company in ordet to promote its export activity for each phase of implementation. The latest figures were computed applying the following logics:

i/ owing to the existing conditions on the Tanzanian market the most profitable factory strategy would be to produce shoes only for the local population;

ii/ the manufacturers of footwear for export have to be motivated to take the trouble concerned with the higher quality and delivery requirements;

iii/ therefore first the possible revenues were computed for the types and quantities to be exported /multiplying the export quantities by the respective ex-factory prices valid for the local supply/;

iv/ the revenues received from the export of respective footwear were deducted from the suppo sed local sale amounts - the total difference is the the loss of the factory on exports;

v/ the Government subsdy required was determined by adding 20 % incentives to the losses.

The profit to be realised by the MSC was computed for each phase of implementation in the upper part of Table 3 /provided the price level and the taxation system will be similar to the existing ones/. The extraordinary /comparing with that of in the industrialized and more advanced economy countries/ gross profit rising up to 20.9 % of cash inflow is resulted by the very high local selling prices.

3.3.8. The Government level profitability is indicated by the lower part of the Table 3. In Tsh terms the Government has an inflow composed from tax paid by the Company after the realised gross profit and has an outflow paid as subsidies on export. The balance is positive in the fifth phase that is MTsh 148.9 yearly.

Table 7

[illegible]

			Unit	Phases of implementation				
				1	2	3	4	5
Factory level	+	Sales proceeds *	[illegible]	[illegible]	405.4	544.7	741.9	928.2
	+	Subsidy	[illegible]	-	-	[illegible]	158.2	253.5
	-	Production costs	[illegible]	[illegible]	301.6	398.6	406.3	409.[illegible]
	-	Sales tax	[illegible]	[illegible]	[illegible]	105.5	139.5	147.[illegible]
		Gross profit	[illegible]	[illegible]	117.1	257.5	297.5	469.4
		Net profit /tax/	[illegible]	[illegible]	[illegible]	153.6	143.9	232.7
Government level	+	Tax /[illegible]/	[illegible]	[illegible]	[illegible]	153.6	143.9	232.7
	+	Sales tax /[illegible]/	[illegible]	[illegible]	[illegible]	105.5	139.5	147.[illegible]
	+	Duties on imports /[illegible]/	[illegible]	[illegible]	26.[illegible]	33.3	44.9	61.9
	-	Subsidy	[illegible]	-	-	58.2	158.2	253.7
		Net government income	[illegible]	[illegible]	154.2	134.5	175.1	144.[illegible]
Government level	+	Foreign exchange income	[illegible]	-	-	1.72	4.54	9.1[illegible]
	-	Cost of imported materials	[illegible]	1.63	3.63	4.36	6.54	7.[illegible]7
	-	Cost of tools, spares etc.	[illegible]	0.30	0.15	0.10	0.15	0.19
		Balance of foreign exchange	[illegible]	-1.63	-3.78	-3.04	-2.15	+1.46

* After deducting the sales tax

As far as the foreign exchange balance is concerned the Governmenet has an inflow from export sales, shile the outflow is due to import of materials, tools and spare-parts requered for the planned production programme. By the fifth phase of implementation the MSC would earn for the Government M US $ 1.46 over the expenditures by exporting 1.2 million pairs of footwear.

3.3.9. When deciding on the acceptance of this alternative programme for the feasible utilization of the MSC, the following /mainly social and political/ factors have to be considered too - along with the economic and financial aspects discussed above:

i/ the recommended production programme provides 2.4 million pairs footwear yearly for the the local population so, that the import material requirement for these shoes compesated entirely by the export envisaged;

ii/ among the footwear to be marketed in Tanzania there are cheap canvas shoes and sandals, which are well needed by the local population /especially those having rather limited funds for wearing goods/, fit to the local climatic conditions and which are not represented sufficientli in the range being offered by shops today;

iii/ if the MSC did not produce shoes, and shoes would have to be imported than the Government expenditures for the 2.4 million pairs would be about US $ 17 million compared with the expenditure of US $ 7.6 million needed for imported materials of the shoes would be produced in MSC;

iv/ the MSC would provide about 1700 labour and staff with working opportunities and wages/salaries well needed by their families;

v/ running the factory would also contribute to the development of people and the local industrial potential, as well as to the establishing of a more favourable image and position of Tanzania on the world market;

vi/ the export of footwear would influence positively the ranges offered for the local market, narrowing by this the gap in fashion between the locally sold shoes and those are used in developed countries, furthermore it would assist in obtaining more up-to-date technical, market and fashion information for the local staff.

3.3.10. The capacity allocation of the MSC according to the recommmended product mix is reprecented by Annex 8.1 and Fig. 8.2., the technical conditions of the production /average runs, last and mould requirements/ are attached as Annex 8.3.

3.3.11. Apart from the footwear manufacturing there are surplus capacities for lace/thread, heel, toppieces and unit sole production. Running these aquipment in three shifts /since they are the most expensive ones/ the following items and quantities may be produced annually for the local market /e.g. for BORA, SIDO factories/:

- lasts	30,000 pairs
- heels	360,000 pairs
- toppieces	300,000 pairs
- unit soles /PUR/	600,000 pairs
- laces	1,200,000 pairs

The total value of these items is approximatelly Tsh 36 million, the imported material requirement is about US $ 800,000.

3.4. As an other alternative might be considered to produce shoe uppers for suitable co-operating partners from industrialized countries. Here again the main objective must be to use local leather as much as possible. The Annex 9 shows costing sheets for moccassin and millitary shoe uppers featuring the following data:

	Production costs	Possible price
	Tsh	US $
moccasin upper	134.10	6.80
military boots upper	104.30	4.20

The imported material requiremenets are US $ 0.61 /9.9 %/ and 0.59 /13.2 %/ respectively.

The quantity produced may come up as high as 1,000,000 yearly - either in one shift /decreasing by this amount the ready made shoes' output/, or ontroducing a second shift in the cutting/ closing rooms. Recognizing the advantages of the shoe upper export one has to realize the extremelly high requirements concerning the quality of workmanship and puctuality of deliveries, as well as the need for a well established communication system with the partner - both in technical and commercial fields. Taking into account all these hard conditions the team recommends this alternative with some reservations.

[illegible].5. The third possible option may be to introduce [illegible]ilitary/safety boots manufacturing in Morogoro. The shoe type would have upper made of heavy printed leather without lining, with leather /leather leather[illegible]/ in-sole and [illegible] or [illegible] or [illegible] outsole. There are two direct injection [illegible] machines equipped [illegible] with the [illegible] for this type of footwear moulds, which are capable to produce about 100,000 pairs boots/year on [illegible] soles.

[illegible].6. In any case the direct labour requirement for the recommended capacity would be 1,410 workers having a shift coefficient 1.[illegible] /Annex 10/. [illegible] staff the overall productivity would be [illegible] pairs/worker/year or [illegible] pairs/worker/8 hours, i.e. [illegible] pairs/employee/year, what is only slightly lower than the same figures in developed countries. /N.B. one has to take into account the high share of canvas shoes and the simplicity of other types as well./

3.7. Since the MTC was overequipped, a number of machines is available to transfer to other shoe manufacturing units in Tanzania. Taking into consideration the recommended production programme the machine park was studied with special care. The Annex 11.1 gives an explanation of the allocation of the existing equipment and the reserved quantities. Comparing the needs with the availability the Annex 11.2 was elaborated, which indicates the surplus machinery /268 pieces in a value of US $ 784,363 calculated at their original FOB prices/. It is strongly recommended to restrict any import of equipment, until this surplus of MTC has been transferred to the respective requisting organisation. The Annex 11.3 provides the list of machinery to be bought for Honduras /US $ 210,000/.

3.8. As it was pointed out in findings, the technical management structure of the MTC needs improvement. Recommended organization flow charts for the

- Production Department
- Marketing Department
- Maintenance Department

are attached as Annex 12.

3.9. It is recommended to carry out a wide market study, which is to explore the best opportunities concerning export of footwear, components /with special reference to lasts, heels, unit soles / and shoe uppers to countries paying in hard currencies. The market research should concentrate on the other countries paying in hard currencies. The market research should concentrate on the other countries neighbor by Tanzania /e.g. Uganda,

Burundi, Rwanda, Zambia, Zaire, Mozambique, Madagascar etc./, as well as on countries in the Near and Middle East /e.g. Kuwait, Oman, Arab Emirates, Yemen, Saudi Arabia, Libia, Jordania etc./ - not leaving out the European market. The best time for such an excercise is when bulk production has been started up and the quality improvement is remarkable in Morogoro / 2nd phase of implementation/. The study has to provide TLAI with relevant information regarding.

- prices, quality standards, ranges requered by particular markets;
- duties, taxation, tariff and non-tariff barriers of the countries involved;
- the competition situation, including collecting samples and quotations from other suppliers;
- local regulations of trade and using brand names;
- co-operation possibilities with local manufacturers/traders;
- margins, commissions, storing and advertising expenses, freight and insurance costs etc.

Since Tanzania has fairly good economic relations with USSR it is strongly recommended to approach its commercial section and start negotiations about a possible shoe export to USSR.

It is also recommended, that a special attention be paid to the possibility of packaging and finishing the exported shoes in order to cut the freight and shipping costs.

3.1o. To implement the five phases project as recommended the TLAI, and consequently the UNIDO needs outside assistance. The best solution could be to enter into a technical assistance contract with a firm having long time experiences in running a shoe production of the similar sizes.

Such a company would be able to provide expertise and personel for training, starting up, market research and selling the products abroad. It is recommended to employ and engange experts for carrying out the following duties:

- instructor training /i.e. experienced worker retraing /in the partner's factory /strictly in English/: two in cutting, there in closing two in lasting and making, plus one chemist and one maintenance engineer in PUR and PVC/TR injection moulding /duration: 1o...16 weeks each/;
- training of local workers by instructors returning from the partner's factory supervised by the expatriate instructors in [illegible]: each training course run by [illegible] instructor would prepare 6...1[illegible] operators within [illegible]...[illegible] weeks;
- starting up the first two [illegible] in each [illegible]tion of the production, [illegible] expatri[illegible]ate production [illegible] experts /at the same time the training of the next lot of operators should be continued/;
- training on site by [illegible]
- [illegible] /[illegible] in [illegible] as well/, the chief of the preventive maintenance, [illegible]
- planning [illegible];
- [illegible] department's [illegible] for [illegible] with [illegible];

- training of the overall technical management on site and introducing the technical preparation of the production.

In order to cope with these tasks the following expatriate personnel /backstopped by the homme-company and its technical documentation servuces/ have to be involved:

1 team leather	-	36 man - months
3 instructors	-	36 man - months
1 designer	-	24 man - months
1 maintenance expert	-	12 man - months
1 chemical expert	-	12 man - months
4 production supervisors	-	72 man - months
1 marketing expert	-	24 man - months
1 purchasing expert	-	12 man - months
3 technologists	-	12 man - months
1 production controller	-	36 man - months
Total: 15 experts	-	312 man - months

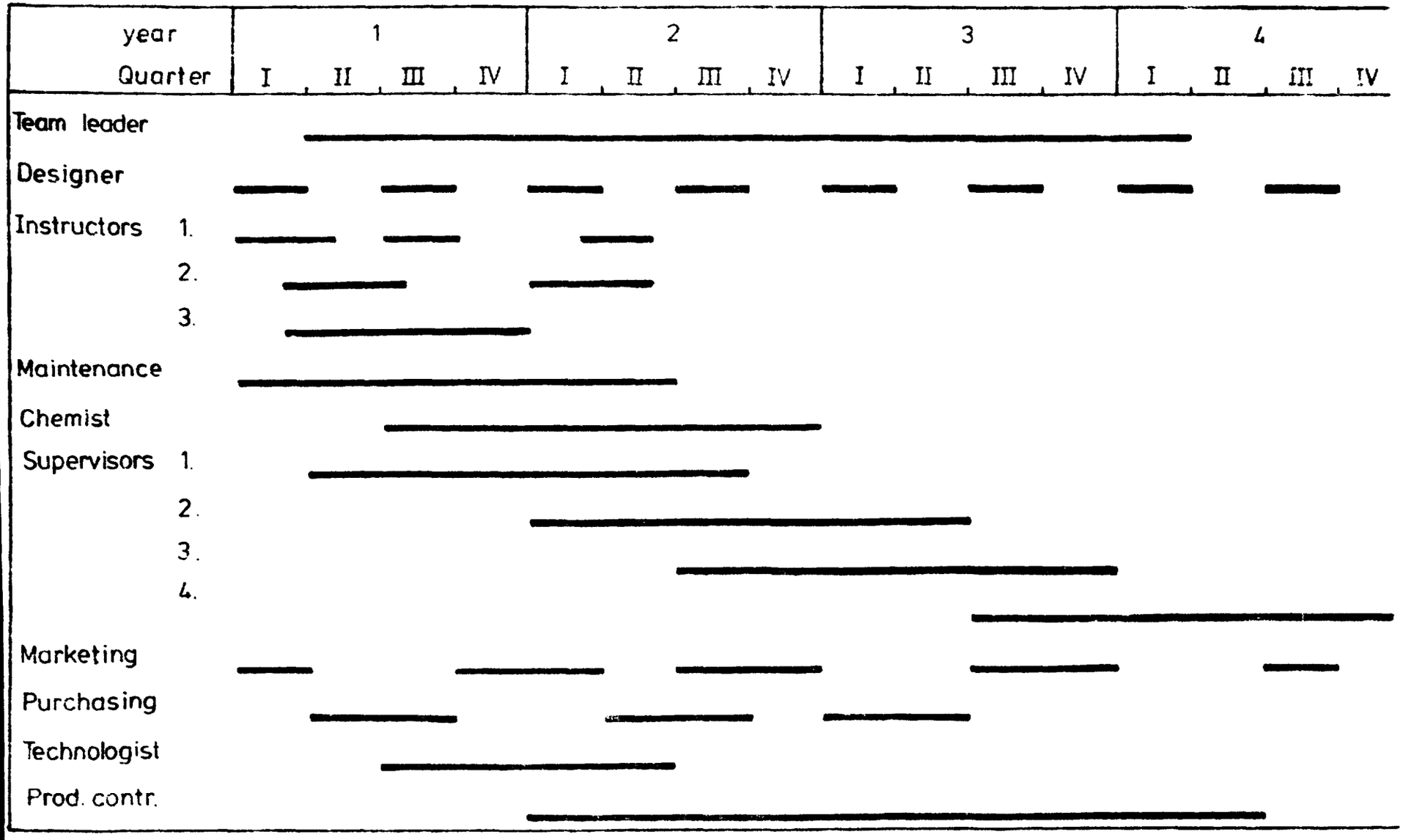
/ See also the barchart/

The technical assistance contract may have an option for both parties concerned to enter gradually into a joint-venture or marketing contract, which would assist in increasing the efficiency of the co-operation.

7.11. The realisation of the project explained in detailes on the previous pages is estimated to involve the following costs:

	DM /
- additional equipment	330,000
- conservation of the machines	80,000
- repairs of the building	250,000
- know-how or trade-mark use fee	700,000
- additional training	400,000
- technical assistance	1,900,000
- market research, range building	150,000
- foot measurement programme	80,000
- other expenses	260,000
Total	4,800,000

The technical assistance project implementation



/These costs are estimates at the 1982 world price level or at costs of similar kind of actions with outside expertise involvments./

Remark: Shoe samples, their technico-economic documentations consisting of basic shells, patterns, drawings of cutting layouts, costing sheets, descriptions of materials to be used, technological sequences of operations, time standards etc. elaborated by and having been used in BUV, are left in the ISC for further utilisation and references.

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5. [illegible] /[illegible]/.
6. [illegible] report made by Mr.[illegible], [illegible] /[illegible]/.
7. [illegible] the preparation of [illegible], [illegible] Publication No. [illegible]/265 /[illegible]/
8. [illegible] of supplies made by [illegible] /[illegible] - [illegible]/
9. [illegible] leather and leather products industries. - [illegible] Publication No. [illegible]/[illegible] /[illegible]/
10. [illegible] industry. [illegible] /[illegible]/

Annex 1.

The proframme completed by the expert team in Tanzania

November, 1982

2nd Arrivel in Dar -es -Salaam and finalising the working schedule.

3rd Visit to TLAI and BORA, dicussion with Mr.F.Malata about the Tanzanian shoe industry.

4th Discussion with Mr. Buit and Mr. Chambers concerning the local material availability and market researches carried out by the UNIDO team.

Visit to the UNDP office.

5th Travel to Morogoro, discussion with Mr. B. Svensson ITL regarding the background and the history of the MB project.

6th Visit to the Morogoro Shoe Company, survey of the plant, workshops and each manufacturing unit.

7th Discussion with the CT concerning the efforts to be taken in order to obtain the maximum possible information.
Survey of the engineering and management contracts signed by TLAI and ITALMACCHINE.
Sudying of the MB document, which initiated the Morogoro Complex investment.

8th Interview of the administrative, the marketing and the supply managers of the Company.
Meeting with the representatives of the factory's party organization and trade union.

9th Interview of the production manager and the training officer of the factory.
Selection of samples for the product-mix to be recommended and elaboration of their costing sheets.

10th Interview of the chief engineer, the chief accountant and selected staff undergoing training in Italy or trained in-plant.
Preparation of the optimum product-mix and calculation of the production costs.
Visit to the Morogoro Tannery.

11th Survey of the machines installed and/or stored in the factory.

[illegible] Meeting with Mr. Tin from WB and discussion about the possible solutions to the existing problems.

15th Preparation of a recommendation focused on the export strategy to be implemented.

14th Discussion with the CTA concerning the management structure and staffing of the Company.

15th Collecting further data in the factory. Computation of the working capital and the export-subsidy required.
Selection of equipment needed for the suggested production programme.

16th Elaboration of a list of surplus equipment, wich may be moved to other footwear manufacturing units.
Moving back to Dar-es-Salaam.

[illegible]th Meeting with Mr. Tin from WB and Mr.Berg from UNIDO and precentation of the main points to be recommended to the Goverment.

[illegible]th Formulation of the report:finalising the findigs.

[illegible]th Visit to the Hungarian Embassy in Dar-es-Salaam.
Formulation of the report: collecting all the backstopping and supporting economic calculations for the alternative solutions.

[illegible] Discussion with Mr.Perr /UNIDO/ and the CTA about the formulation of the final reports and the future actions to be taken.

[illegible]st Finalising the report /formulation and typing/.

[illegible]nd Visit to the UNDP office.
Handing over draft of the report to the GOT and the UNIDO.
Departure to Hungary via Frankfurt.

Annex 2.

Persons contacted in Tanzania

The following list consists only of the most important persons contacted by the Hungarian team of experts while staying in Tanzania.

From UNIDO

Dr.Otto Klötzer - CTA of the project SI/URT/82/8o2

Mr. R. Svensson - TTL of the project DP/URT/78/olo

Mr. [illegible]. Buit - leather industry expert

Mr. R. Chambers - marketing expert

Mr. F. Malata - shoe machinery maintenance expert

Mr. D. Russel - design expert

Mr. J. Perr - industrial development officer

In the UNDP Office

Mr. Menzin - Senior Industrial Development Field Adviser of the UNIDO

From [illegible]

Mr. Nguyen Truong [illegible] - Development officer

In TLAI

Mr. [illegible]. Nyamillo - Managing Director

In the Morogoro Shoe Company

Mr. S. Mwilima - Administrative Manager

Mr. [illegible]. Rutaihwa - Marketing Manager

Mr. [illegible]. Mwinimi - Supply Manager

Mr. [illegible]. M'Inga - Chief Engineer

Mr. Banks - Acting Finance [illegible] Planning Manager

Mr. Mbona - Acting Production Manager

Mr. [illegible]. Morotha - Training Officer

In the Hungarian Embassy

Mr. Szabó - Ambassador

Mr. [illegible]. Hegyeres - Representative of [illegible] in Tanzania

Annex 5.

Leather prices in Tanzania.

/Extract from a quotation of the Morogoro Tanneries/

Unit: Tsh/sq.ft

Article	Thickness	Grade II	Non graded
Plain upper	1.2-1.4	22.13	
	1.4 - 1.6	22.25	
	1.6 - 1.8	22.38	
	1.7 - 1.9	22.50	
Print upper	1.4 - 1.6	21.75	
Heavy printed upper	1.7 - 1.9	17.38	
Front suede	2.0 - 2.2	22.25	
Suede splits	1.3 - 1.5	18.00	
Kandil leather	2.0 - 2.2	22.50	
Anilin/semi aniline	1.4 - 1.6	23.63	
Clog leather	2.[illegible] - 3.0		28.75
[illegible] pprent		25.31	
Calf upper		25.31	
Lining splits	1.0 - 1.2		10.00
Vimented splits			16.50
Goat/sheep upper		26.25	
Goat/sheep lining			10.00
Insole	per kg		77.00

Remarks : 1. All prices inclusive 25 % of sales tax

2. Terms of payment: strictly cash

COSTING

/European cost components/

Style : Moccasin /one pair/

	Qty	Unit	Rate US ¢/unit	Cost
Upper leather /goat/	2.9	sq.ft	1.7o	4.93
Wool lining	o.3	sq.ft	1.1o	o.33
Insole /leather board/	o.o3	m^2	3.8o	o.11
Stiffener /card board/	1	pair	o.15	o.15
Sole /leather/ + heel	o.4o	kg	3.7o	1.48
Topnice	o.1o	kg	1.oo	o.1o
Leather welt	1.3o	m	o.23	o.3o
Auxiliary materials		total		o.48
Packaging /bag, box, carton/		total		o.4o
	Materials subtotal			8.38
Labour	52	min	6.oo/hour	5.2o
Manufacturing expenses				o.52
Depreciation				o.42
G.A., finance, marketing				1.6o
	Total production costs			16.o8
Profit margin	3			o.48
	EX FACTORY PRICE US ¢			16.56
Freight to the wholesaler/retailer				o.28
Selling price		US ¢		16.84

COSTING

/European cost components/

Style: 002 - Men safari boot /one pair/

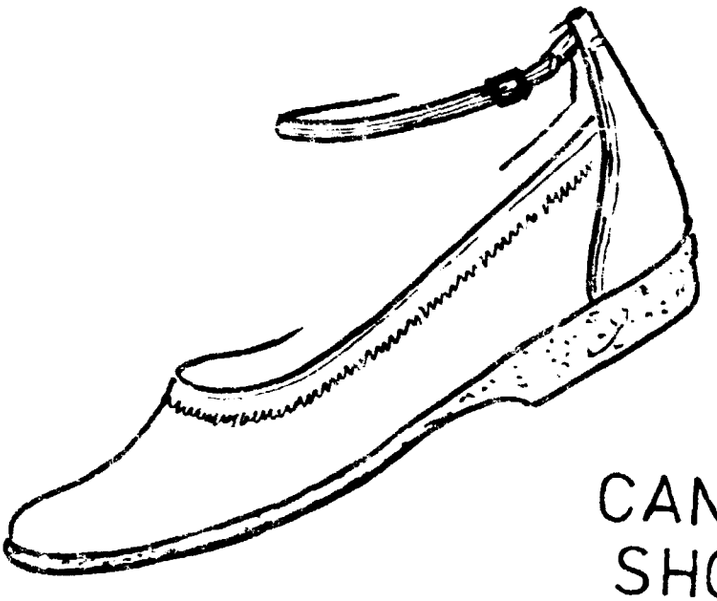
	Qty	Unit	Rate US $/unit	Cost
Upper suede /2.0 mm/	2.60	sq.ft	1.10	2.86
Cow lining	0.82	sq.ft	1.00	0.82
Stiffener /textile base/	0.25	sq.ft	0.35	0.09
Toe puff /split leather/	0.15	sq,ft	0.70	0.11
Crepe rubber sole /8 mm/	0.48	kg	2.20	1.06
Bend sole leather /3 mm/	0.28	kg	3.70	1.04
Auxiliary materials		total		0.45
Packaging /bag, box, carton/		total		0.40
	Materials subtotal			6.85
Labour	24	min	6.00/hour	3.20
Manufacturing expenses				0.55
Adm., finance, marketing exp.				1.60
	Total productions costs			12.58
Profit margin	3			0.38
	EX FACTORY PRICE		US $	12.96
Freight to wholesaler/retailer				0.28
Selling price			US $	13.24

COSTING
/European cost components/

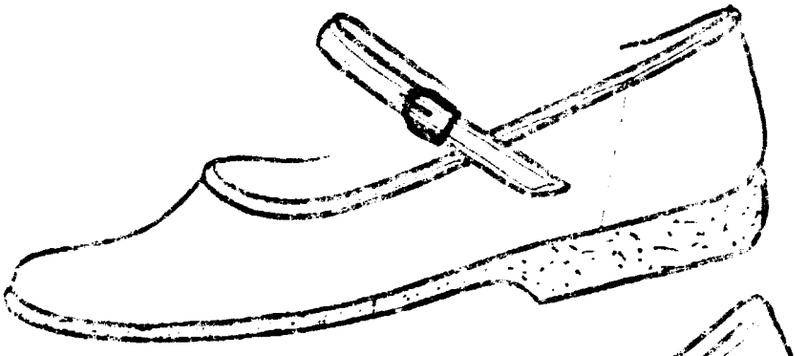
Style : 63009 - Conventional shoe / one pair /

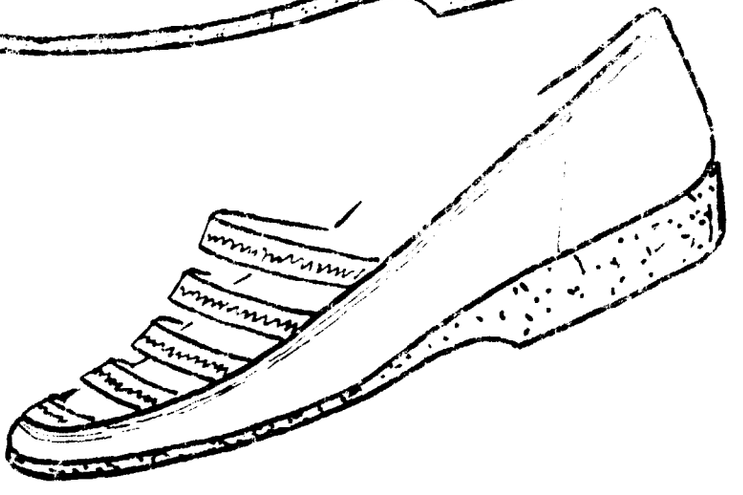
	Qty	Unit	Rate US $/unit	Cost
Cow leather /printed/	1.83	sq.ft	1.40	2.56
Cow lining	1.84	sq,ft	1.00	1.00
Stiffener /leather board/	1	pair	0.15	0.15
Toe-puff /thermo/	0.20	sq.ft	0.32	0.06
Hard card board	0.072	kg	0.65	0.05
Steel shank	1	pair	0.03	0.03
Insole /Alfacell/	0.05	m^2	4.70	0.24
Sole /leather	0.40	kg	3.70	1.48
Toppiece	0.10	kg	1.00	0.10
Leather welt	1.30	m	0.23	0.30
Auxiliary materials		total		0.43
Packaging /bag, box, carton/		total		0.40
	Materials subtotal			7.69
Labour	56	min	6.00/hour	5.60
Manufacturing expenses				0.38
Depreciation				0.41
Adm., finance, marketing				1.60
	Total production costs			15.89
Profit margins	3			0.48
	EX FACTORY PRICE		US $	16.37
Freight to the wholesaler /retalier				0.28
Selling price			US $	16.65

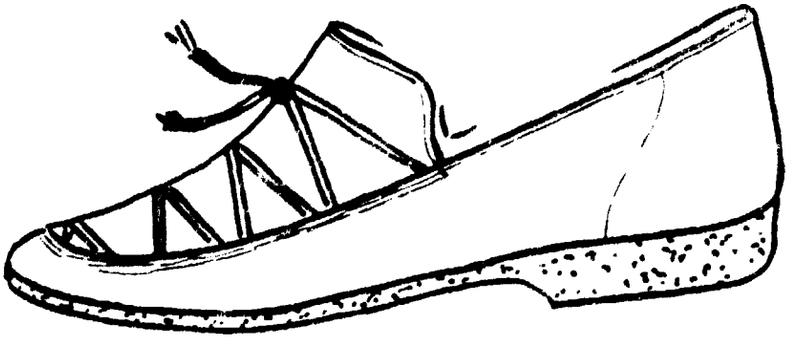
Annex 5.1



CANVAS SHOES







COSTING
/Tenzanian cost components/

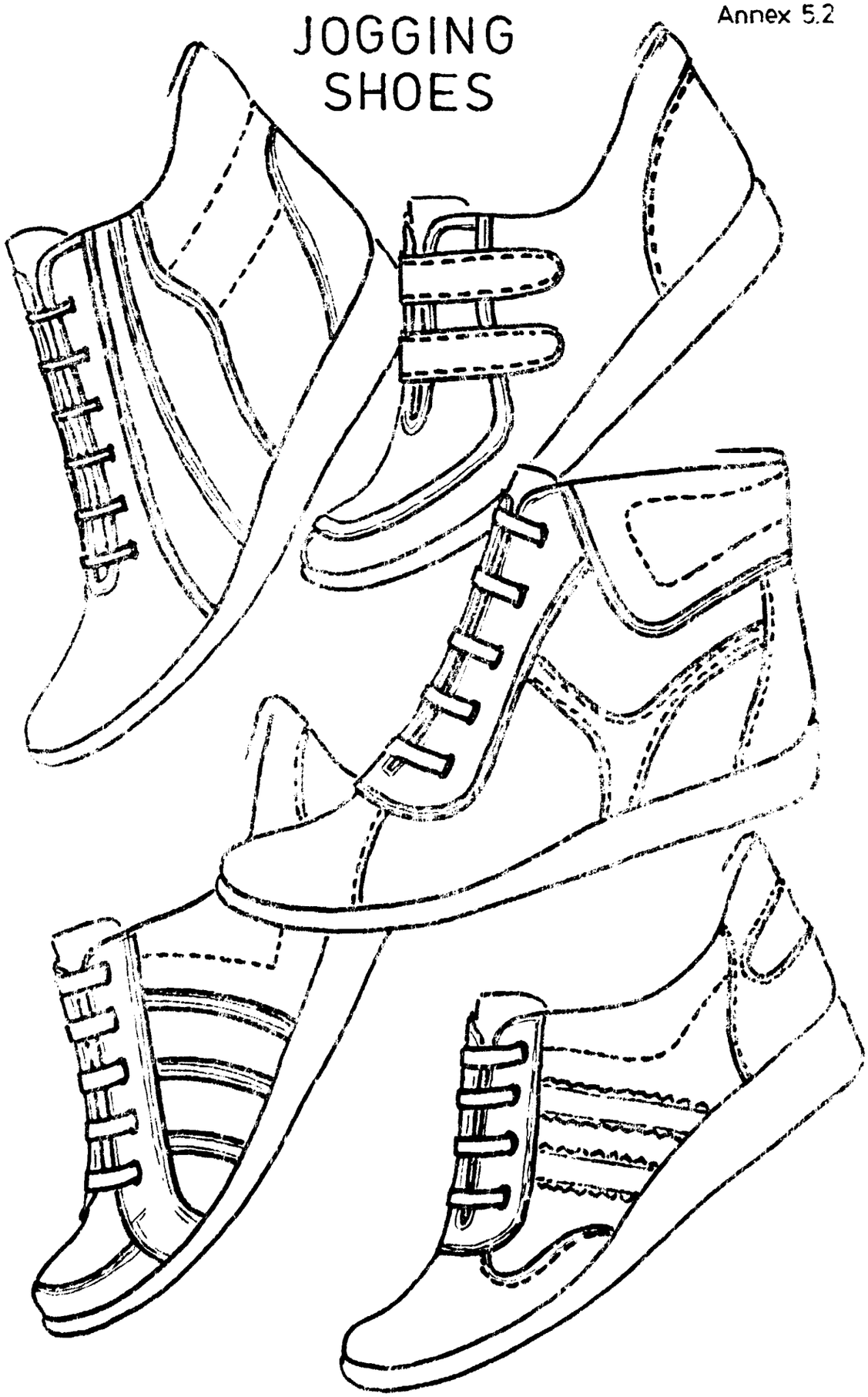
Style: Canvas shoes /ladies - one pair/

	Qty	Unit	Rate Tsh/unit	Cost
Upper canvas	0.14	m^2	54.00	7.56
Quarter straps	1.20	m	0.60	0.72 +
Stiffener /veg. split/	0.30	sq.ft	11.25	3.38
Toe-puff /textile/	0.01	m^2	22.60	0.22
Lining /textile - split/	0.50	sq.ft	17.00	8.50
Cement compound	0.3	kg	44.00	13.20 +
Auxiliary materials		total		1.40 +
[illegible]		total		1.50 +
		Materials subtotal		37.48
[illegible]	[illegible]	[illegible]	4.00/hour	3.50
[illegible]				4.77
[illegible]				2.40
		Total production costs		148.15
		Selling price		200.00

- Imported material consumption Tsh 37.62 /65.6 %/

Annex 5.2

JOGGING SHOES



Annex 5.2

COSTING

/Tanzanian cost components/

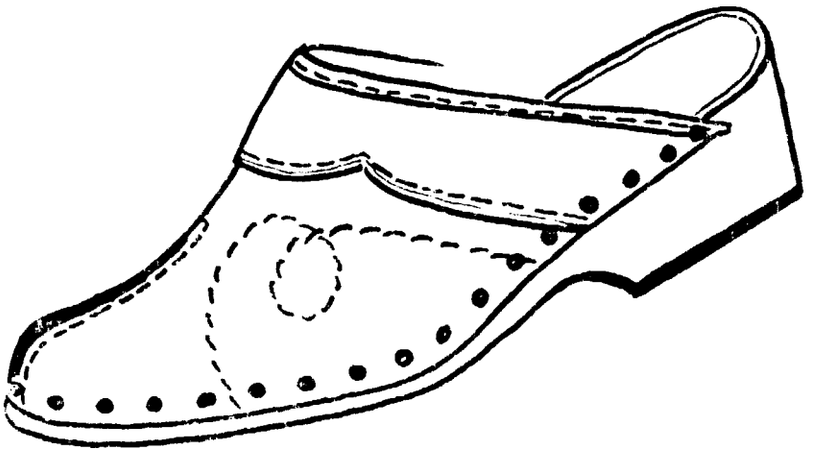
Style:13406 - Jogging shoes /one pair/

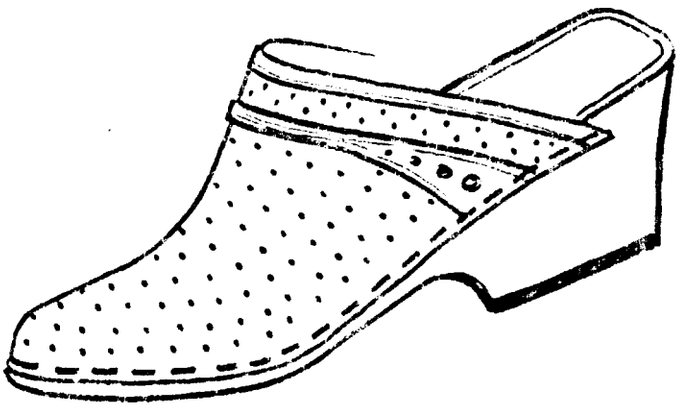
	Qty	Unit	Rate Tsh/unit	Cost
[illegible]	0.35	dm²	48.40/m²	4.05 +
Split suede /1.4 - 1.6/	0.76	sq.ft	16.50	12.54
[illegible] lining /0.7 mm/	0.43	sq.ft	14.50	6.24
Sponge for socs /4 mm/	0.04	m	59.30	2.37 +
Stiffener /1.1 mm/	1.5	dm²	38.50/m²	0.58 +
[illegible] puff /split/	0.15	sq.ft	[illegible]	0.65
Insole /alfacell/	3.7[illegible]	dm²	35.[illegible]/m²	1.35
Sole /PU unit/	1	pair	35.00	35.00
[illegible] lining	0.48	sq.ft	13.[illegible]0	5.34
Auxiliary materials		total		24.17 ++
Packaging /bag, carton/		total		[illegible].50 +
Material subtotal				[illegible].7[illegible]
Labour	110	min	4.00/hour	7.[illegible]
Depreciation				4.[illegible]
Overheads				38.[illegible]
Total production costs				136.41
Selling price				350.00

\+ Imported material consumption Tsh 55.93 /65.2 [illegible]/

++ Tsh 20.08 is for imported material

Annex 5.3





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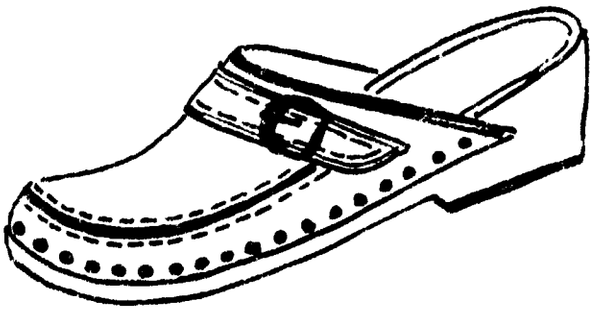
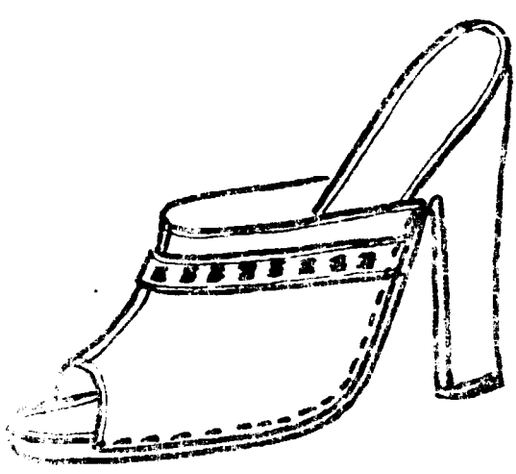
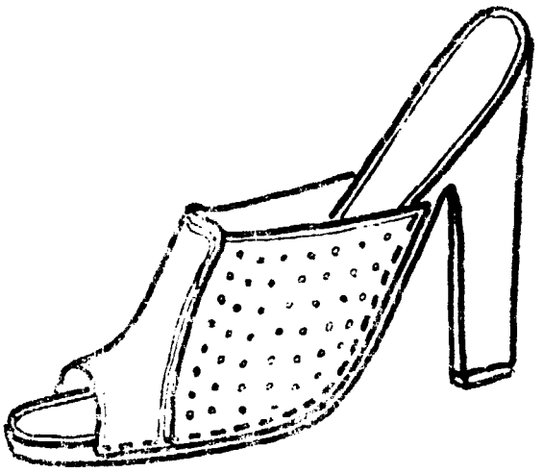
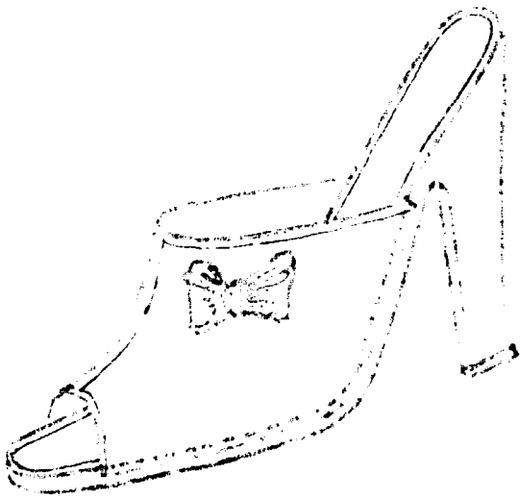


Annex 5.3







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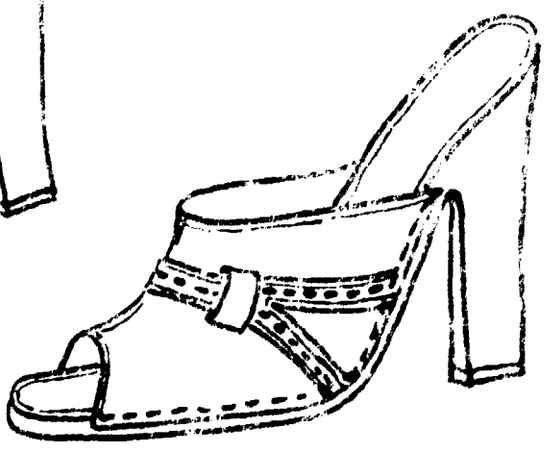


Annex 5.3

COSTING

/Tanzanian cost components/

Style: Clogs /ladies - one pair/

	Qty	Unit	Rate Tsh/unit	Cost
Upper leather	0.65	sq.ft	23.50	15.28
Lining /leather/	0.50	sq.ft	26.25	13.13
Moulded sole	1	pair	15.00	15.00
Insole	1	pair	1.25	1.25
Outsole	1	pair	3.00	3.00 +
Auxiliary materials		total		9.50 +
Packaging /box, carton/				2.50 +
Material subtotal				69.56
Labour	16	min	4.00/hour	3.07
Depreciation				4.01
Overheads				35.44
Total production costs				101.82
Selling price				250.00

- Imported material consumption Tsh 17.33 /28.3 %/

Annex.5.4

SAFARI
BOOTS

Annex 5.4

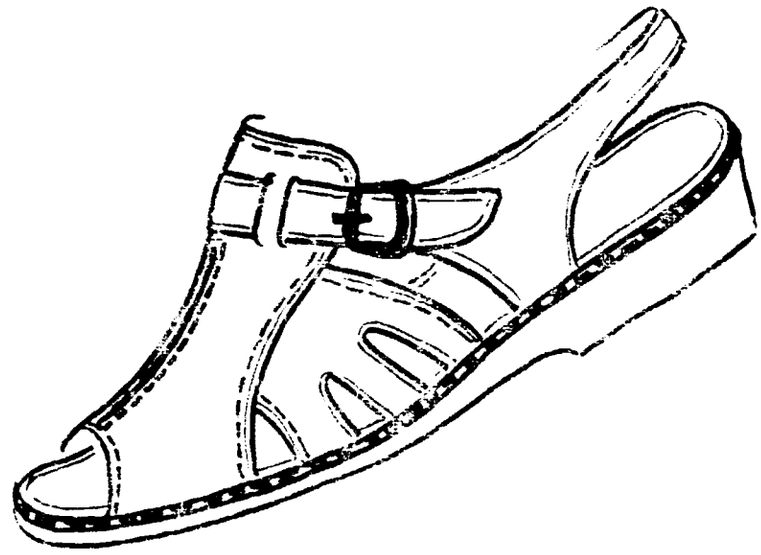
COSTING
/Tanzanian cost components/

Style: oo2 - Men safari /one pair/

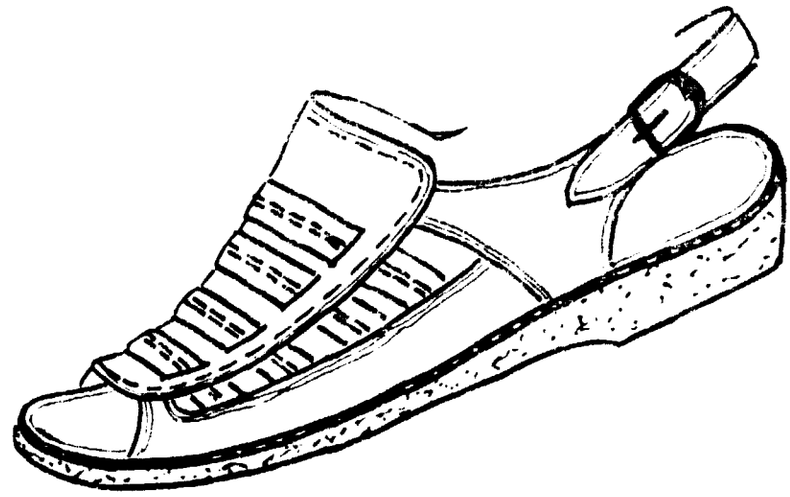
	Qty	Unit	Rate	Cost
[illegible] /2.o mm/	2.6o	sq.ft	22.oo	57.[illegible]
[illegible] lining	o.82	sq.ft	19.oo	15.58
[illegible] /textilebase/	o.25	sq.ft	3.56	o.90 +
[illegible] /split leather /	o.15	sq.ft	16.oo	[illegible].1o
[illegible] rubber sole /8 mm/	o.48	kg	30.oo	14.4o +
[illegible] sole /leather [illegible]/	o.28	kg	76.oo	[illegible]
[illegible] /bag, carton/		total		[illegible].5o +
[illegible] materials		total		21.11 +
Materials subtotal				1[illegible]
[illegible]	54	min	[illegible].oo/hour	4.[illegible]
[illegible]				4.[illegible]
[illegible]				[illegible].4[illegible]
[illegible] production costs				1[illegible].6[illegible]
[illegible] price				[illegible].oo

Imported material consumption Tsh 38.91
/28.8 %/

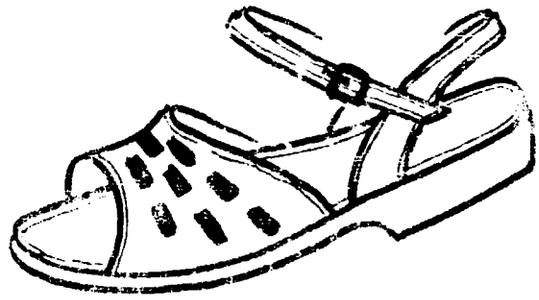
Annex 5.5

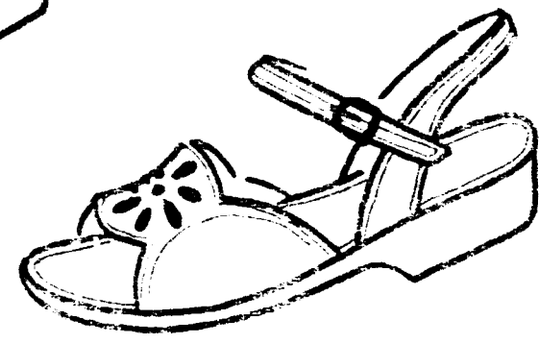


GENTS SANDALS

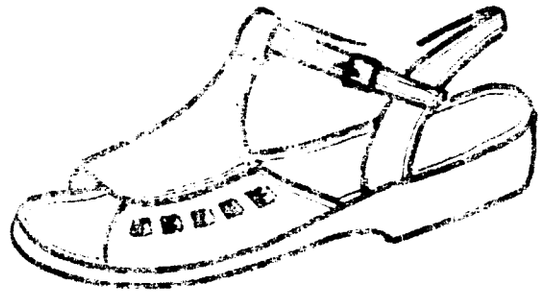


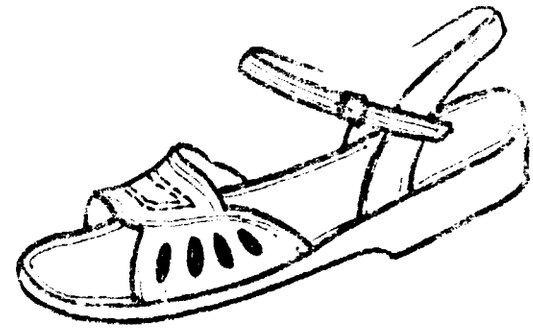
Annex 5.5

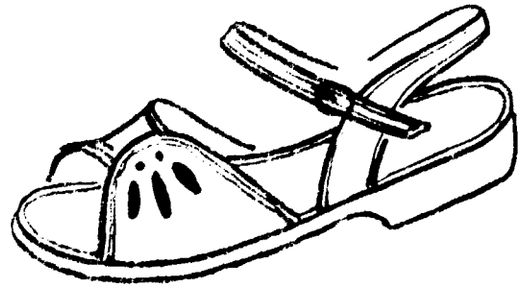




LADIES/GIRLS SANDALS







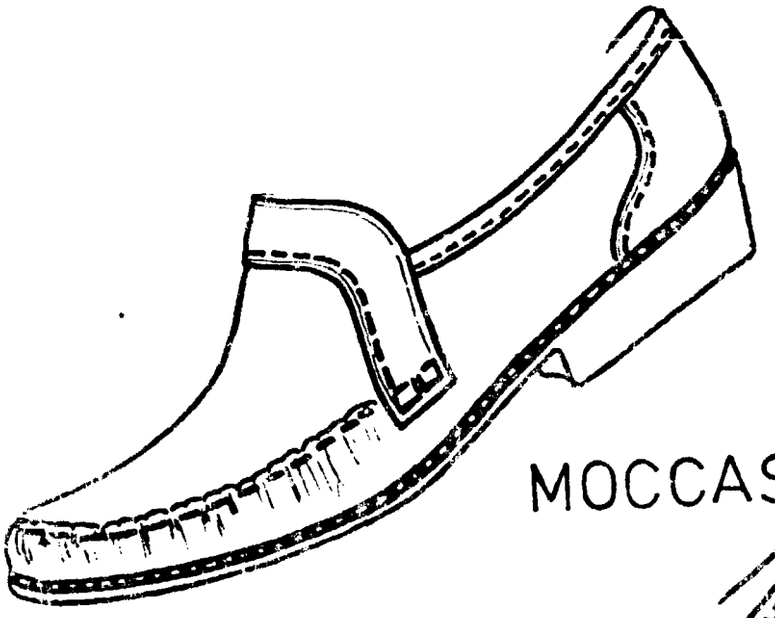
COSTING
/Tanzanian cost components/

Style: Ladies/girls sandal /one pair/

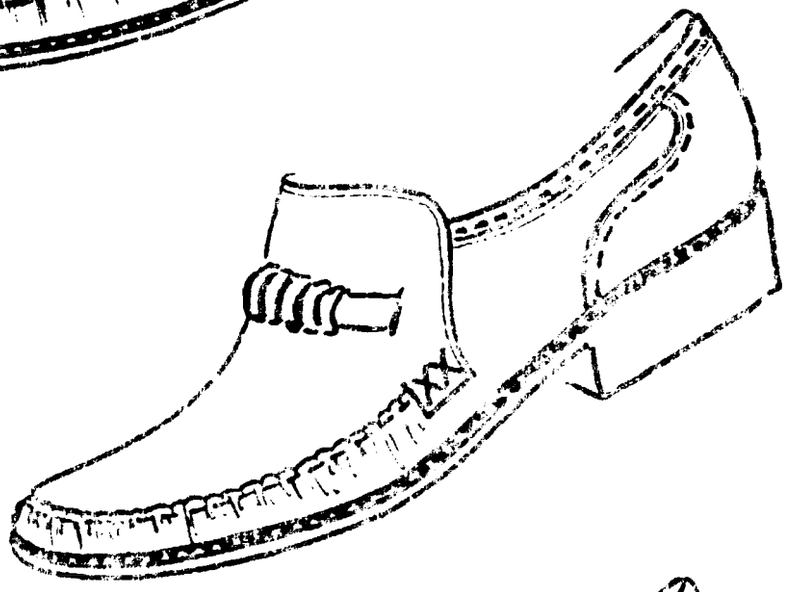
	Qty	Unit	Rate Tsh/unit	Cost	
Upper leather /plain/	0.56	sq.ft	22.13	12.39	
Lining	0.60	sq.ft	30.00	12.00	
Tack lining	0.40	sq.ft	20.00	8.00	
Insole /two layers/	0.08	m^2	26.80	2.14	+
Sole /PU unit /	1	pair	15.50	15.50	+
Auxiliary materials		total		11.20	+
Packaging /bag, carton/				2.50	+
	Materials subtotal			73.73	
Labour	56	min	4.00/hour	3.73	
Depreciation				4.21	
Overhead				38.48	
	Total production cost			130.75	
	Selling price			260.00	

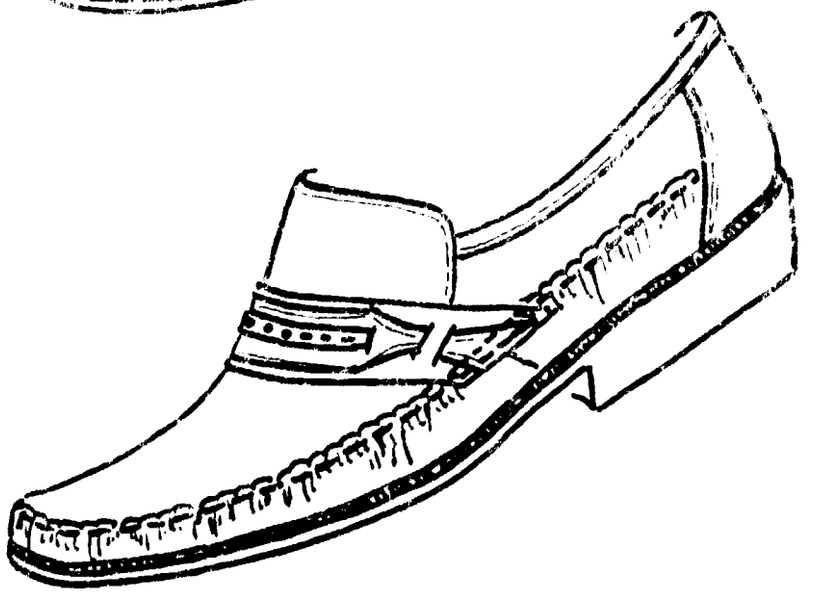
+ Imported material consumption Tsh 41.34
/56.1 %/

Annex 5.6



MOCCASINS





Annex 5.6

MOCCASINS

COSTING

/Tanzanian cost components/

Style: Moccasin /one pair/

	Qty	Unit	Rate Tsh/unit	Cost
Upper leather /goat/	2.9	sq.ft	26.55	76.13
Foot lining	0.3	sq.ft	20.00	6.00
Binding /reg. leather/	0.34	kg	68.00	16.32
Stiffener /leather board/	0.1f	sq.ft	7.5[illegible]	0.54 +
Sole & heel /leather/	0.40	kg	76.00	30.40
Lining /manmade/	0.16	sq.ft	7.50	0.56 +
Other trims	1.10	m	4.00	5.28
Ancillary materials		total		20.50 +
Packing /box, carton/		total		4.50 +
	Materials subtotal			164.93
Labour	24	min	4.00/hour	6.26
Depreciation				4.81
Overhead				40.97
	Total production costs			216.97
	Selling price			500.00

Imported material consumption Tsh 24.10

/15.2 %/

Annex 5.7

LADIES FASHION SANDALS

COSTING

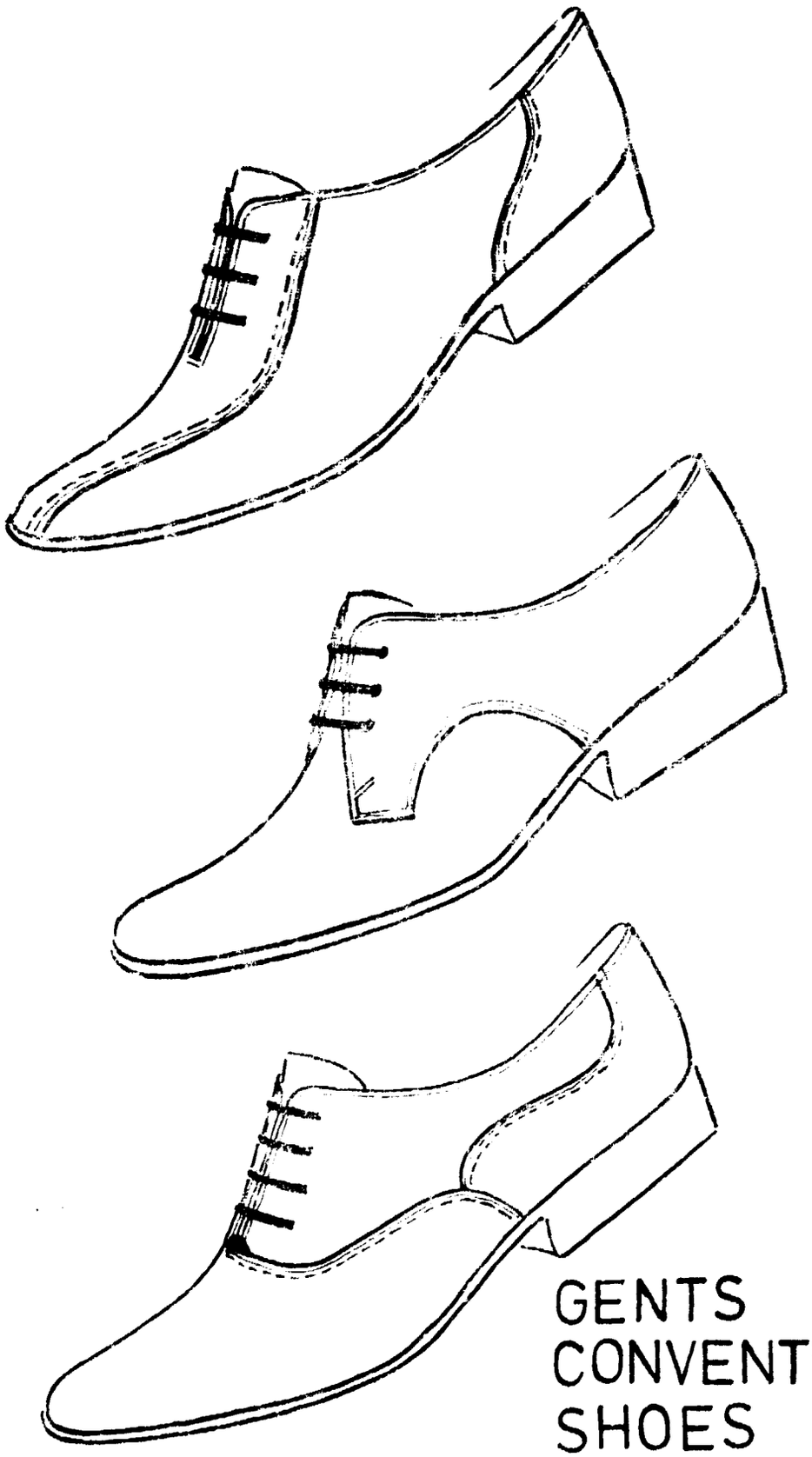
/Tenzanian cost components/

Style: High fashion ladies sandale /one pair/

	Qty	Unit	Rate Tsh/unit	Cost
Upper leather /calf/goat/	1.25	sq.ft	26.25	33.60
Lining + sock	1.20	sq.ft	26.25	31.50
Buckles/decoration	1	pair	6.00	6.00 +
Insole	0.05	m^2	26.80	1.34 +
Cardboard /hard/	0.20	sq.ft	1.20	0.24 +
Steel shank	1	pair	0.96	0.96 +
Threads /leather/	0.18	kg	75.00	13.68
Heel	1	pair	8.00	8.00 +
Eyelets	1	pair	1.20	1.20 +
Auxiliary materials		total		16.20 +
Packaging /bag, carton/		total		2.50 +
	Materials subtotal			115.22
Labour	74	min	4.00/hour	4.93
Depreciation				4.81
Overheads				40.98
	Total production costs			165.94
	Selling price			480.00

+ Imported material consumption Tsh 36.44
/31.6 %/

Annex 5.8



GENTS
CONVENTIONAL
SHOES

COSTING

/Tanzanian cost components/

Style: 63009 - Conventional shoes /one pair/

	Qty	Unit	Rate Tsh/unit	Cost
[illegible] leather /printed/	1.83	sq.ft	22.00	40.26
[illegible] lining	1.84	sq.ft	19.00	34.96
[illegible]tiffener /textile base/	0.12	sq.ft	3.80	0.46 +
[illegible] puff /thermo/	0.14	sq.ft	3.44	0.48 +
[illegible] cardboard	0.14	sq.ft	1.00	0.20 +
[illegible] shank	1	pair	0.80	0.80 +
[illegible] /[illegible]sell/	0.60	sq.ft	4.54	2.72 +
[illegible] /leather/	0.40	kg	76.00	30.40
[illegible]fice /resist/	0.12	sq.ft	7.80	0.56 +
[illegible] welt	1.00	m	4.00	5.00
[illegible] materials		total		[illegible] +
[illegible] /box, carton/		total		1.50 +
	Materials subtotal			[illegible].77
[illegible]our	175	min	4.00/hour	7.00
[illegible]reciation				1.31
[illegible]				40.00
	Total production costs			[illegible].08
	Selling price			460.00

+ Imported material consumption Tsh 27.17
/19.6 /

ESTIMATES OF PRODUCTION COSTS

Unit: M Tsh

Period	Start - up				Targeted production
Phase	1	2	3	4	5
Capacity utilisation	17.5	4o	55	75	9o
Materials /direct/*	98.8	136.1	2o4.2	297.o	37o.7
Labour **	2.6	6.3	9.4	13.[illegible]	17.6
Utilities	o.6	1.3	1.[illegible]	3.5	5.o
Medicines	1.4	3.1	4.[illegible]	6.2	7.[illegible]
Maintenance	2.3	5.[illegible]	7.7	1o.o	12.3
Depreciation**	1.[illegible]	4.1	6.1	8.3	11.2
Other overheads	[illegible].[illegible]	1o.[illegible]	14.1	1[illegible].[illegible]	[illegible].o
[illegible]	7[illegible].o	[illegible].4	[illegible].[illegible]	[illegible].2	4[illegible].5
[illegible]	[illegible].o	[illegible].[illegible]	[illegible].o	[illegible].[illegible]	[illegible].[illegible]
[illegible]	[illegible].o	[illegible].[illegible]	[illegible].[illegible]	[illegible].o	[illegible].[illegible]
[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].[illegible]
[illegible]	[illegible].o	[illegible].[illegible]	[illegible].4	[illegible].7	[illegible].[illegible]
[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].o	[illegible].[illegible]	12.o
[illegible]	[illegible].o	14.[illegible]	14.o	[illegible].o	[illegible].o
[illegible]	[illegible].[illegible]	[illegible].[illegible]	[illegible].o	[illegible].[illegible]	[illegible].[illegible]

* Proportional to the implementation schedule

** Proportional to the direct material costs

Annex 6.

[illegible]

Unit: [illegible]

	Minimum days of coverage	Coeff. of turnover	Start-up period				Targeted capacity
			1	2	3	4	5
Account receivable	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	32.7	40.4
Inventory							
- Local raw materials			[illegible]	[illegible]	[illegible]	[illegible]	13.6
- Imported materials	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
- Spare parts	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Work in progress	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.8
- finished goods	[illegible]		[illegible]	[illegible]	17.1	[illegible]	30.2
- cash in hand	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	4.6
CURRENT ASSETS			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Account payable	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CURRENT LIABILITIES			[illegible]	[illegible]	[illegible]	[illegible]	- 27.8
WORKING CAPITAL			[illegible]	[illegible]	[illegible]	[illegible]	144.3

CASH BALANCE SCHEDULE

[illegible] in hand reqirement: 15 days / coefficient of turnover = 24 /

Unit: M Tsh

	Start - up				Targeted capacity
	1	2	3	4	5
Production costs	161.5	[illegible]5.6	[illegible]	406.5	[illegible].5
- materials	[illegible]	[illegible]	[illegible]	[illegible]7.0	[illegible]
Utilities	0.6	1.7	1.8	[illegible].5	[illegible]
- depreciation	24.0	[illegible]	24.0	24.0	24.0
Required cash balance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

	[illegible]	
	'000 units	[illegible]
Ch[illegible]s	[illegible]	4.[illegible]
Jo[illegible]in[illegible]	1[illegible]	[illegible].4[illegible]
Ch[illegible]s	[illegible]7[illegible]	[illegible]
Safari	[illegible]	[illegible]
Total	[illegible]	7.[illegible]

Sales [illegible]: [illegible]

* At [illegible]

Annex 7.

				Imported material required	Subsidy required
	Foreign exchange M US $		M Tsh	M US $	M Tsh
	-	-	-	0.749	-
	-	-	-	0.366	-
	-	-	-	0.072	-
	-	-	-	0.472	-
	-	-	-	1.659	-

Annex 7.2

Phase: 2

	Local sale		Export			Imported materials	Subsidy required
	'000 pairs	M Tsh	'000 pairs	M US $	M Tsh	M US $	M Tsh
Canvas	[illegible]	[illegible]	-	-	-	1.362	-
Jogging	[illegible]	[illegible]	-	-	-	0.672	-
Clogs	[illegible]	[illegible]	-	-	-	0.185	-
Safari	[illegible]	[illegible]	-	-	-	0.789	-
Sandals	[illegible]	[illegible]*	-	-	-	0.483	-
Moccasins	[illegible]	[illegible]*	-	-	-	0.174	-
TOTAL	[illegible]	[illegible]	-	-	-	3.631	-

Sales taxes: [illegible] M Tsh

* At 90 % of the planned price

Annex 7.3.

Phase: 3

	Local sale		Export			Imported materials M US $	Subsidy required M Tsh
	'000 pairs	M Tsh	'000 pairs	M US $	M Tsh		
Canvas	[illegible]	[illegible]	10	0.026	0.255	1.703	1.23
Jogging	160	[illegible]	[illegible]	0.203	2.058	0.739	13.80
Clogs	120	30.0	80	0.215**	2.107	0.206	13.89
Safari	300	162.0	[illegible]	0.756	7.426	1.105	14.17
Sandals	250	[illegible]	[illegible]	0.072	0.706	0.670	3.45
Moccasins	[illegible]	100.0	40	0.439	4.302	0.362	11.70
Conventional	100	[illegible]*	-	-	-	0.163	-
TOTAL	1,[illegible]	[illegible]	300	1.719	16.836	4.858	58.24

Sales taxes: 10[illegible] M Tsh

* At 50 % of the planned price

** Exported only to neighbouring countries

Annex 7.4.

Phase 4

	Local sales		Export			Imported materials M US $	Subsidy required M Tsh
	'000 pairs	M Tsh	'000 pairs	M US $	M Tsh		
Canvas	[illegible]	[illegible]	[illegible]	0.077	0.7[illegible]	2.157	3.69
Jogging	[illegible]	[illegible]	86	0.332	3.294	0.739	22.89
Clogs	[illegible]	[illegible]	136	0.335	3.283	0.206	22.72
Safari	[illegible]	[illegible]	1[illegible]	1.433	14.043	1.062	26.76
Sandals	[illegible]	[illegible]	[illegible]	0.265	2.607	0.938	12.79
Moccasins	[illegible]	[illegible]	1[illegible]	1.317	12.907	0.653	48.00
Fashion sandals	[illegible]	[illegible]*	[illegible]	0.[illegible]	1.[illegible]	0.327	6.47
Conventional	[illegible]	[illegible]	[illegible]	0.662	6.390	0.496	15.69
TOTAL	[illegible]	[illegible]	[illegible]	4.556	44.764	6.538	158.21

Sales taxes: [illegible] M Tsh

* At 90 % of the [illegible]

Annex 7.5

	Export		Imported materials M US $	Subsidy required M Tsh
...pairs	M US $	M Tsh		
[illegible]	0.0[illegible]2	0.[illegible]	0.157	4.43
[illegible]	0.332	3.[illegible]4	0.739	25.34
[illegible]	0.[illegible]	5.352	0.206	23.07
[illegible]	[illegible]	17.[illegible]	1.052	33.99
[illegible]	0.546	5.[illegible]1	1.072	16.50
[illegible]	[illegible]	[illegible].262	0.793	87.74
[illegible]	0.7[illegible]	7.[illegible]	0.719	53.66
[illegible]	[illegible]	21.7[illegible]	[illegible].015	53.34
[illegible]	[illegible].150	30.004	7.550	285.29

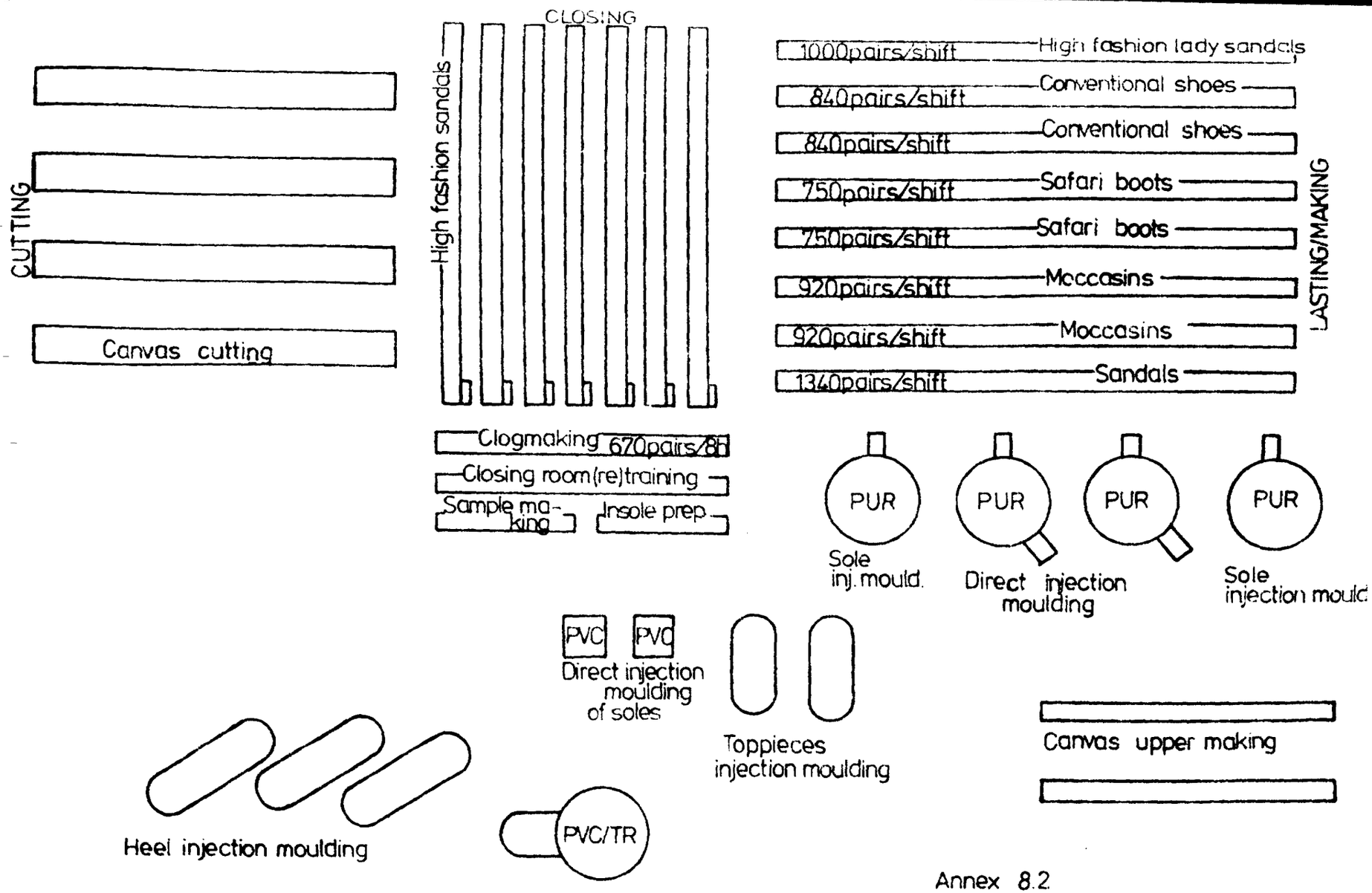
Phase 3

	Local sale		
	,000 pairs	M Ksh	,0
Canvas	[illegible]	[illegible]	
Jogging	[illegible]	[illegible]	
Clogs		[illegible]	
Safari	[illegible]	[illegible]	
Sandals	[illegible]	[illegible]	
Moccasins	[illegible]	[illegible]	
Fashion Fantasy	[illegible]	[illegible]	
Conventional	[illegible]	[illegible]	
TOTAL	[illegible]	[illegible]	

Sales value: [illegible] M Ksh

Unit: Million pairs

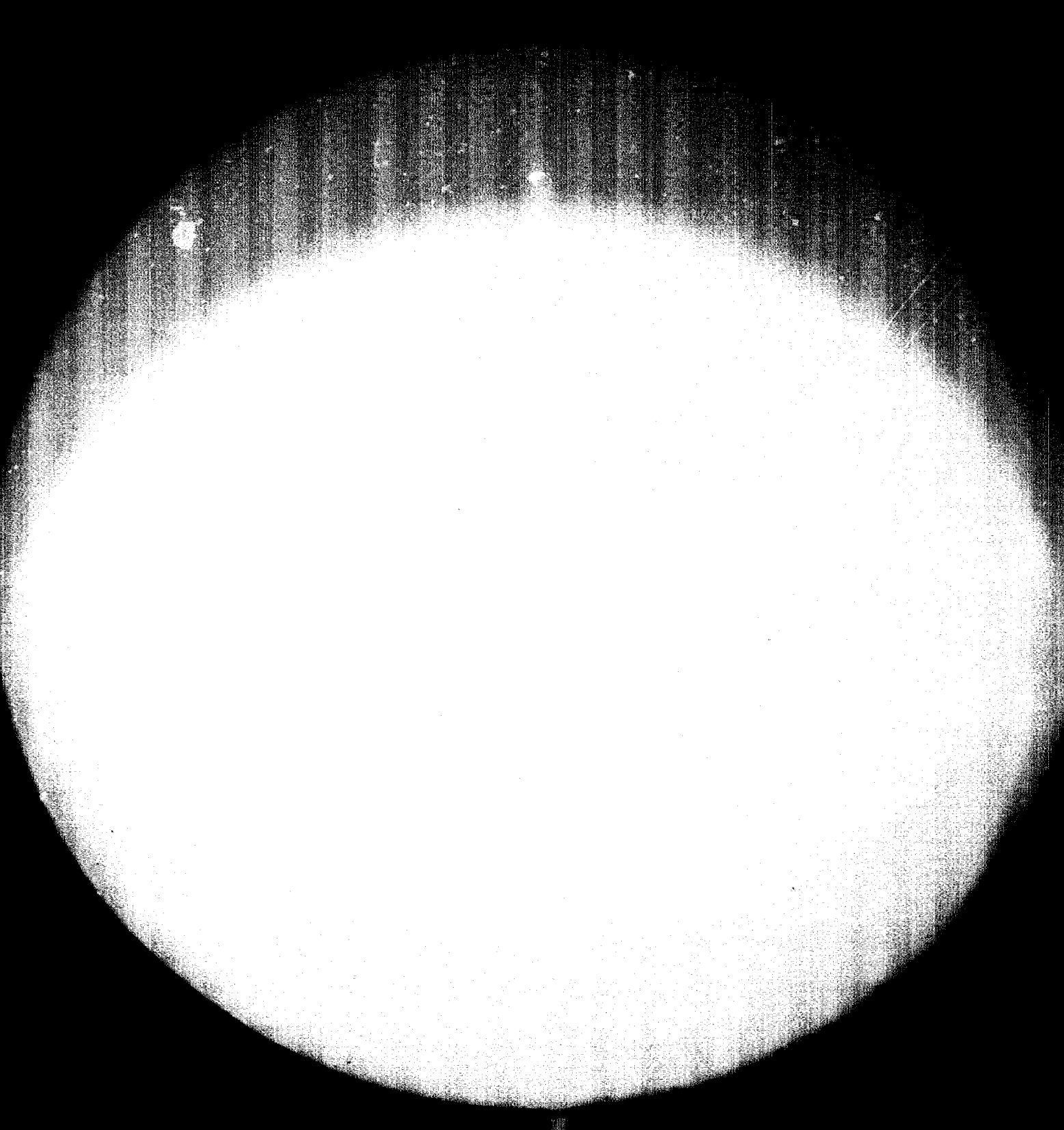
	Uppermaking				Lasting					Soling					TOTAL
	Canvas	Moccasin	Conventional	Fashion quality	Board lasted	Welting/sewing	Stitch-down	Moccasin	Manual	Direct injection moulded	Cemented	Welt	Stitchdown	Manual	TOTAL
Canvas	0.95					0.95				0.95					0.95
Jogging			0.22			0.22				0.22					0.22
Clogs			0.20						0.20					0.20	0.20
Safari			0.35	0.10			0.45						0.45		0.45
Sandals			0.30	0.10					0.40		0.40				0.40
Moccasins		0.55						0.55			0.15	0.40			0.55
Fashion sandals				0.33					0.33		0.33				0.33
Conventional			0.30	0.20	0.50						0.10	0.40			0.50
TOTAL	0.95	0.55	1.07	0.13	0.50	1.17	0.45	0.55	0.93	1.17	0.98	0.80	0.45	0.20	3.60

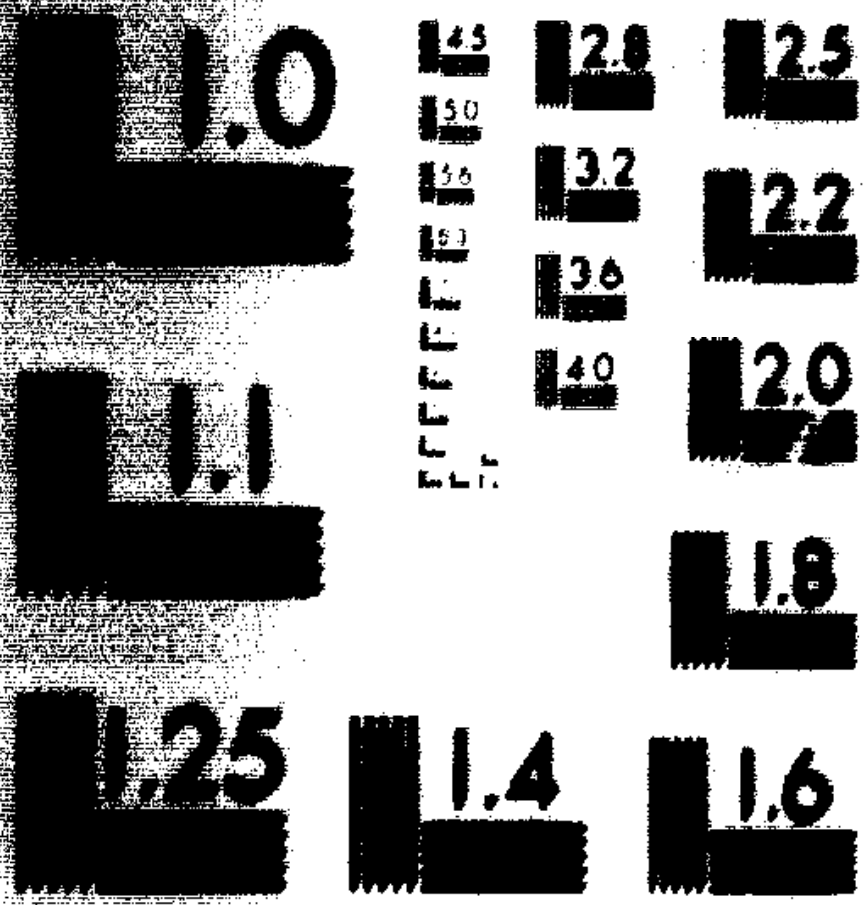

CUTTING
Canvas cutting
CLOSING
High fashion sandals
Clogmaking 670pairs/8h
Closing room(re)training
Sample making
Insole prep
LASTING/MAKING
1000pairs/shift High fashion lady sandals
840pairs/shift Conventional shoes
840pairs/shift Conventional shoes
750pairs/shift Safari boots
750pairs/shift Safari boots
920pairs/shift Moccasins
920pairs/shift Moccasins
1340pairs/shift Sandals
PUR
Sole inj. mould.
PUR
Direct injection moulding
PUR
PUR
Sole injection mould
PVC
PVC
Direct injection moulding of soles
Toppieces injection moulding
Canvas upper making
Heel injection moulding
PVC/TR

Annex 8.2

TECHNICAL CONDITIONS

	Annual output '000 pairs	Series			Tooling	
		Average '000 pairs/style	Number of styles manufactured in a year	Number of new styles in a year	New lasts	New moulds for soles
Canvas	950	160	6	2	-	1
Hanging	220	55	4	[illegible]	-	-
Logs	200	35	6	[illegible]	-	-
Wood	450	35	6	[illegible]	[illegible]	-
Sandals	400	27	15	5	[illegible]	1
Moccasin	550	[illegible]	[illegible]	[illegible]	[illegible]	-
Ballet, sandals	330	[illegible]	25	15	[illegible]	-
Traditional	500	17	30	[illegible]	[illegible]	[illegible]
TOTAL	3600	36	100	51	5	[illegible]





MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS 1963-A

COSTING

/Tenzanian cost components/

Style: Moccasin upper /one pair/

	Qty	Unit	Rate Tsh/unit	Cost
Upper leather /goat/	2.9	sq.ft	26.25	76.13
Lining	o.8	sq.ft	2o.oo	16.oo
Auxiliary materials		total		8.3o +
Packaging /bag,carton/		total		1.8o +
	Materials subtotal			1o2.23
Labour	43	min	4.oo/hour	2.87
Oveheads				22.5o
Depreciation				2.2o
Freight etc.				4.3o
	Total production costs			134.1o
Possible price /CIF Europe/			US $	6.8o

+ Imported material consumption: Tsh 1o.1 /9.9 %/

equivelent US $ o.61 / incl. 7o % duty /

COSTING

/Tenzanian cost components/

Style:**Military/safety boot upper /one pair/**

	Qty	Unit	Rate Tsh/unit	Cost
Upper leather /embossed/	3.7	sq.ft	17.38	64.31
Auxiliary materials		total		8.1o +
Packaging		total		1.7o +
	Materials subtotal			74.11
Labour	4o	min	4.oo/hour	2.67
Overheads				21.1o
Depreciation				2.2o
Freight				4.3o
	Total production costs			1o4.38

Possible price /CIF Europe/ US ¢ 4.2o

+ Imported material consumption: Tsh 9.8o /13.2 %/

equivalent to US ¢ o.59 /incl. 7o % duty/

Annex 1o

Labour requirement

/ingluding formen/

Production department	Number of shift	Number of workers
Cutting of leather and textile	1	12o
Bottom cutting and prefebrication	1	15o
Closing	1	5o5
Lasting, making, finishing	1	325
Sole and heel injection moulding	3	1oo
Last/wooden sole manufacturing	3	3o
Lace/thread manufacturing	3	3o
Maintenance/toolmaking	1 /3/	7o
Stores	1 /3/	3o
Garages	1 /2/	2o
TOTAL		141o

Shift coefficient: 1.23

Annex 11.1.

Distribution of production equipment

1. CLOSING ROOM

No	Code	Machine	Canvas	Joggins	Clogs	Safari	Sandals	Moccasins	Fashion sandals	Conventional	TOTAL	Existing	Reserve	Balance
Capacity, pair/8h			3,500	820	750	1,700	1,500	2,00	1,200	1,800	13,270			
1.	N1	Stitch marking	2	1	-	2	2	2	2	2	13	13	-	-
2.	C4	Skiving	1	2	2	4	5	8	5	6	33	32	-	-
3.	E12,E1	Flat/single sewing	4o	5	4	8	18	21	18	1o	124	99	-	-
4.	E3	Post sewing	-	3	-	10	5	8	5	6	37	35	-	-
5.	Q4	Edge folding	-	-	2	-	-	-	5	6	13	21	3	+5
6.	Q5,Q6, Q21	Eyeletting	4	1	-	2	-	-	-	3	10	14	-	-
7.	X4	Lacing	3	1	-	2	-	-	-	2	8	8	-	-
8.	G2	Edge trimming	-	1	1	-	3	-	2	2	9	12	-	-
9.	E10,E33	Fancy seam sewing	-	12	1	-	-	-	-	4	17	14	-	-

/Continued/

No	Code	Machine	Canvas	Jogging	Class	Safari	Sandals	Moccasin	Fashion sandals	Conventional	TOTAL	Existing	Reserve	Balance
Capacity, pairs/8h			3,500	820	750	1,700	1,500	2,000	1,200	1,800	13,270			
10	E2	Zigzag	-	2	1	-	-	4	-	-	7	15	3	+5
11	S6	Backseam taping	-	-	-	-	-	2	-	-	2	20	3	+15
12	B7	Bar punching	-	-	-	-	2	2	2	-	6	2	-	-
13	E7	Binding	12	-	-	-	-	10	-	-	22	45	8	+15
14	E29,E30	Moccasin sewing	-	-	-	-	-	30	-	-	30	33	-	-
15	E14	Bartacker	-	1	-	-	2	-	2	-	5	8	-	-
16	E13	Twin sewing/spec/	5	-	-	2	-	-	-	-	7	31	9	+15
17	E30	Interlining press	2	-	-	-	-	-	1	1	4	4	-	-
18	D25	Toe-puff attaching	-	1	-	-	-	-	-	-	1	12	-	-
19	E15	Repaire sewing	1	-	-	1	-	1	1	1	5	10	-	+5
	TOTAL		70	30	11	31	37	88	43	43	353	428	26	+60

Annex 11.1. /continued/

2. LASTING, MAKING, SHOE ROOM /without canvas and direct soling/

No	Code	Machine	Clogs	Stitchdown /safari/	Sandals	Moccasin	Fashion sandals	Conventional	TOTAL	Existing	Reserve	Balance
Capacity, pairs/8h			750	1,700	1,500	2,000	1,200	1,800	8,950			
1	H2,H26	Insole attaching	-	2	2	1	1	2	8	-	-	-9
2	H22	Backpart moulding	-	-	-	-	-	2	2	7	2	+3
3	H24	Backpart moulding/sp/	-	2	-	-	-	-	2	1	-	-1
4	R1	Conditioning	-	-	-	4	-	-	4	16	4	+8
5	R3	Moccasin forming	-	-	-	2	-	-	2	8	2	+4
6	I1,I6 J1	Upper roughing	-	-	-	-	1	2	3	1o	2	+5
7	R1	Toe-puff activating	-	-	-	-	2	4	6	8	2	-
8	H9	Pulling over/lasting	-	-	-	-	-	4	4	4	-	-
9	H7	Pulling over/lasting /sp/	-	4	-	-	-	-	2	2	-	-
10	H11	Moccasin lasting	-	-	-	8	-	-	8	8	-	-
11	L8	Side lasting	-	-	-	2	-	3	5	6	1	-
12	S1	Contour pounding	-	8	-	-	-	-	8	16	2	+6
13	L5	Running stapling	-	4	-	-	-	-	4	4	-	-
14	H20	Upper trimming	-	2	-	-	-	-	2	2	-	-
15	E23	Sole stitching	-	4	-	-	-	-	4	2	1	-3

/continued/

No	Code	Machine	Clogs	Stitch down /safari/	Sandals	Moccasins	Fashion sandals	Conventional	TOTAL	Existing	Reserve	Balance
Capacity, pairs/8h			740	1,700	1,500	1,000	1,200	1,800	8,950			
16	M2	Sole/heel trimming	-	4	-	-	-	-	4	4	-	-
17	H16	Heel-seat lasting	-	-	-	2	-	2	4	8	2	+2
18	H2	Side stapling	2	-	-	-	-	-	2	2	-	-
19	R8	Heat setting	-	2	-	2	-	2	6	8	-	+2
20	S8	Pounding	-	-	-	2	-	2	4	4	-	-
21	S4	Heel-seat forming	-	-	-	2	-	2	4	8	1	+3
22	L4	Strap mailing	-	-	1	-	1	-	2	8	1	+5
23	I4	Roughing	-	-	2	4	2	4	10	14	-	+4
24	D18	Adhesive applying	-	4	2	4	2	4	16	16	-	-
25	R12	Sheck activator	-	4	2	4	2	4	16	10	-	-6
26	F2	Sole laying	-	2	2	2	1	2	9	8	1	-
27	G3	Lining trimming	-	-	4	-	-	-	4	4	-	-
28	X6	Last pull	-	2	-	2	-	2	6	6	-	-
29	X8	Channel opening	-	-	-	2	-	-	2	8	1	+5
30	E34	McKay stitching	-	-	-	4	-	-	4	8	2	+2
31	X7	Channel closing	-	-	-	2	-	-	2	8	-	+6
32	J14	Sole polishing	-	-	-	2	1	2	5	12	1	+6
33	F12	Sole edge ironing	-	-	-	2	-	2	4	8	1	+3

/continued/

No	Code	Machine	Clogs	Stitch down /safari/	Sandals	Moccasins	Fashion sandals	Conventional	TOTAL	Existing	Reserve	Balance
	Capacity, pairs/8h		750	1,700	1,500	2,000	1,200	1,800	8,950			
34	I4	Heel polishing	-	-	-	2	-	2	4	4	-	-
35	K2	Heel screwing	-	-	-	-	1	-	1	6	1	+4
36	K4	Heel nailing	-	-	-	2	1	2	5	8	1	+2
37	D9	Sock lining	-	2	1	2	1	2	8	10	2	-
38	R11	Quarter ironing	-	-	-	2	-	2	4	8	1	+3
39	R14	Hot air blower	-	-	-	2	1	2	5	8	1	+2
40	AA6	Finishing	-	-	1	2	1	2	6	30	1	+23
41	P9	Exhauster	-	-	1	2	1	2	6	18	1	+11
42		Boxmaking	-	-	-	2	1	2	5	-	1	-6
43	N6	Box marking	-	-	-	2	1	2	5	8	1	+2
44	N3	Lining scouring	-	-	2	-	1	2	5	6	1	-
45		Carton strapping	-	-	-	1	-	-	1	-	-	+1
		TOTAL	2	46	20	72	22	65	217	344	38	+101 - 26

LIST OF SURPLUS

N°	Itelmacchine code	Item
.	B 8	Perforating machine
.	B 13	Hidraulic trolley press
.	B 18	Multiple perforating machine
.	C 2o	Leather upper splitting machine
.	C 21	Grooving and channeling machine
.	C 38	Heavy duty skiving machine
.	C 4o	Leather sole skiving machine
.	D 5	Cementing machine
.	E 2	Zig-zag sewing machine
o.	E 7	Arm sewing machine
1.	E 13	Flat bed twin needle sewing machine
2.	E 9	Coloum post bed sewing machine
3.	E 34	Blake sewing machine
4.	E 15	Repairing sewing machine
5.	F 12	Edge setting machine

Annex 11.2

EQUIPMENT

Manufactuer	Quantity pcs	Unit price US $	Total value US $
	5	849	4245
Allevi NPO 160x40	6	6090	36540
	2	2903	5806
	3	4931	14793
Franco Torti	3	2652	7956
Ellegi	2	1188	2376
Ellegi GL 12 F	2	1188	2376
Sagitta RP 66	10	850	8500
Bernina	5	1072	5360
Adler 69 - 7? E	15	1800	27000
Adler 167-c SNH 1/2.5	15	2880	43200
Adler 68-2025/2.5	20	2701	54020
Falan 59	2	6845	13690
Singer	5	871	4355
	3	620	1860

16		[illegible]				
17	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
18	[illegible] 15	[illegible] seat la[illegible] machine	[illegible]	2	11251	[illegible]
19	[illegible]	Two sections [illegible] machine	[illegible]	[illegible]	[illegible]33	8799
20.	I 1	[illegible] upper [illegible] machine		[illegible]	1039	2078
21.	J 1	Roughing machine	[illegible]	[illegible]	3395	10185
22	I [illegible]	Special finishing [illegible] machine		24	948	22752
23	I 5	[illegible] buffing machine		4	1052	4208
24.	[illegible]	[illegible] machine		[illegible]	1410	11652
25.	[illegible] 14	[illegible] machine	[illegible]	6	7470	44820
26	[illegible]	Screw inserting machine	[illegible]	4	[illegible]	[illegible]
27	K 4	Heel nailing machine	[illegible]	2	6728	13456
28.	I 4	Side nailing machine		5	3043	15215
29.	[illegible]	[illegible] lasting machine	[illegible]		[illegible]651	7302
30.	N 4	Upper and lining [illegible] machine		8	1423	11384
31.	[illegible] 6	Mechanical [illegible] machine		2	1423	2846
32	[illegible] 12	High frequency [illegible] machine	[illegible]	[illegible]	[illegible]	54691
33	[illegible]	[illegible] cabinet		8	455	3640
34	[illegible] 8	Rotary [illegible] machine		2	9545	19090
35	[illegible] 11	Upper [illegible] machine	[illegible]	3	[illegible]	6705

36.	[illegible]	[illegible]
37.	S 1	Lining [illegible]
38.	[illegible] 6	Pneumatic [illegible]
39.	V 8	Heel tridimensional copying machine
40.	[illegible] 4	Automatic eyeletting machine
41.	Q 12	Welt applying machine
42.	Y 8	Grooving machine
43.	X 7	Groove closing machine
44.	51	Pre-sewing machine /Goodyear/
45.	S 4	Heel seat pounding
46.	AA 6	Hand held finishing iron
47.	R 14	Hot air blower

+ Estimated prices

	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]
...ec.	15	[illegible]	[illegible]
	1	14372	14372
[illegible] 15 [illegible]	5	1763	8815
	2	3212	6424
	5	200	1000
	6	312	1872
	[illegible]	33637	67274
	3	4932	14796
	22	410+	9020
Elektronika [illegible]	2	1520+	3040
! [illegible]	262		US $ 784303

Annex 11.3

List of equipment to be bought for the Morogoro Shoe Company

No.	Code	Item	Qty	Unit price US $	Value US $
.		Shoe Manufacturing Machinery			
.		Leather waiving equipment /[illegible]/	4		7oooo ++
.	[illegible]	Counter moulding machine	1	5547	[illegible]
.	[illegible]	Pulling over and lasting machine	2	[illegible]328	1o656
.	[illegible]	Sole sticking machine	3	[illegible]	[illegible]
.	[illegible]	Sole laying press	1	[illegible]	[illegible]
.	12	Heel activator	6	[illegible]	[illegible]
.		Box stapling machine	5	[illegible]	11ooo +
.		Carton making machine	1	35oo	[illegible] +
		Subtot 1	[illegible]		[illegible]
.		Last manufacturing special machine			[illegible] +
.		Cutting die making equipment			[illegible] +
.		Maintenance equipment			[illegible] +
.		Additional lasts, injection moulds			[illegible]
.		Communication, office equipment			[illegible]oooo +
		TOTAL			[illegible]
		Freight, installation etc /[illegible]/			[illegible]
		TOTAL [illegible] US $			[illegible]

+ Based on estimated prices

++ Including training on site

Annex 12.1

PRODUCTION
Secretari
Deputy manager
MANAGER
SUPER INTENDANT
PRODUCTION CONTROL
TECHNOLOGY
QUALITY CONTROL
CUTTING
COMPONENT MANUFACTURING
CLOSING
LASTING & MAKING
SUPERVISOR
Production planning
Production convol and accounting
Patternmaking
Costing and time standards
Technology preparation
In-plant quality control
Laboratory
Canvas and textile
Upper leather
Botton materials
Leather, rubber, leather board
Lace manufacturing
Wooden components
Canvas uppers
Moccasin uppers
Shoe/sandal uppers
Cemented
Stitchdown/mocca-sin)
Chemical technologies
FORMAN
Grading
Sample making
1 forman
3 formen
2 for-men
Insole/stiffe-ner
Leather heels
Sole
3 for-men
Soles
Lasts
4 formen
2 formen
5 formen
4 formen
4 formen
PUR
PVC
Heel

FORMAN
SUPERVISOR
SUPER INTENDANT
MANAGER
Preventive maintenance
Investment control
Energetics
Spare parts stock
MAINTENANCE PLANNING
Carpentry works
Building works
Electrical works
Plant maintenance
Mechanics
Electric/pneumatic
Garages
CIVIL WORKS
MAINTENANCE Chief Engineer
Deputy chief eng.
Cutting and component man.
Sewing machines
Lasting/making machines
Moulding machines
Factory mechanics
EQUIPMENT
Secretary
Cutting die and toolmaking
Mechanical maintenance
Electric maintenance
Machine tools workshop
Workshop

Annex 12.2

SUPERVISOR

SUPER-
INTENDANT

MANAGER

Fashion inform.

Range building

RANGE BUILDING

QUALITY INSPECTION

Final quality inspection

MARKETING

Deputy manager

Secretary

Market research

Advertising, promotion

Agencies

SALES PROMOTION

Contracting

Shipping, forwarding

Packaging

Distribution (stock)

Sales accounting

SALES CONTROL

Annex 12.3

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