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28 June 1978
English

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ASSISTANCE TO THE LEATHER INDUSTRY SECTOR

EM/SUD/75/007

SUDAN

Technical report:
NATIONAL WORKSHOP FOR THE DEVELOPMENT
OF LEATHER AND LEATHER ALIEN PRODUCTS
IN THE SUDAN

Report for the Government
of the Democratic Republic of the Sudan by the
United Nations Industrial Development Organization,
executing agency for the
United Nations Development Programme



United Nations Industrial Development Organization

United Nations Development Programme

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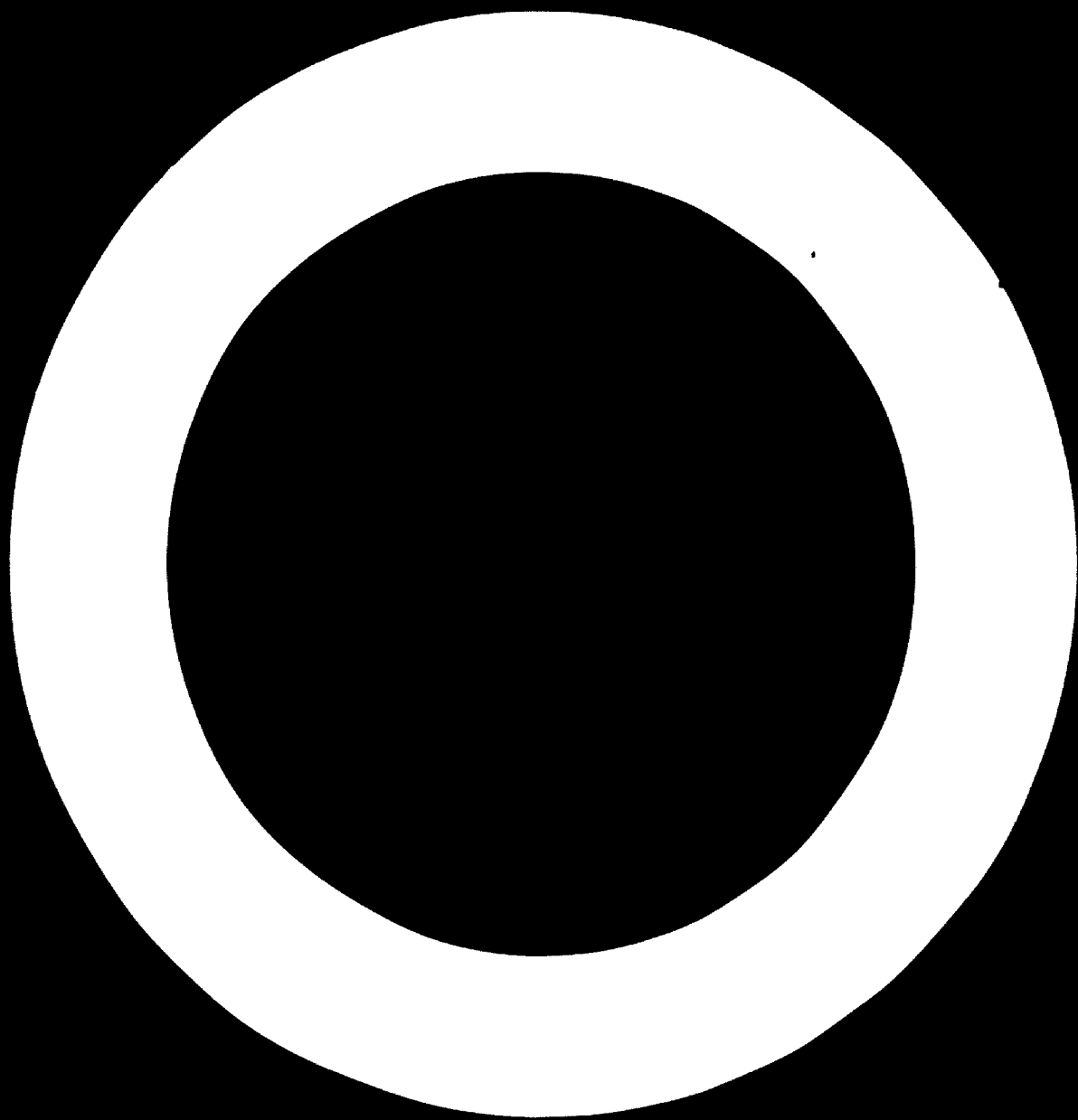
SUDAN

Technical report: National Workshop for the Development
of Leather and Leather Allied Products in the Sudan

Prepared for the Government of the Democratic Republic of the Sudan
by the United Nations Industrial Development Organization,
executing agency for the United Nations Development Programme

Based on the work of John W. Parkinson and J.H. Sharpouse

United Nations Industrial Development Organization
Vienna, 1976



ABSTRACT

The project "Assistance to the Leather Industry Sector" (SM/SUD/75/007) of the United Nations Development Programme (UNDP) was carried out by a team of experts from the United Nations Industrial Development Organization (UNIDO), the executing agency. The mission lasted fifteen days, from 1-15 March 1976.

The Sudanese leather industry has developed considerably during the last few years. In the public sector, three large tanneries have been established: one has been operating since 1962, the second started production in mid-1974 (both these tanneries are located in Khartoum), and the third is under construction at Wad Medani and is expected to start operating soon. In addition to these mechanized tanneries, there exists a considerable number of rural tanneries, estimated at some 300 units.

A large amount of man-made materials is used in the Sudanese foot-wear manufacturing industry because of the high price and short supply of leather. Only about 15% of locally produced foot-wear is made out of genuine leather.

The mission covered the field of foot-wear manufacture and its aim was to assess the leather industries and then to write and present papers on this subject at a National Seminar on Leather and Leather Allied Industries.

This workshop was a joint effort between the Government of Sudan and UNIDO to discuss and appraise the present situation of the leather industries with the aim of recommending ways and means for the integration of all facets of the industries, with particular emphasis on achieving greater exports of leather and finished leather products.

The mission found that the main problem was the export of raw hides and skins and the consequent inability of the manufacturers of leather and finished leather products to obtain selected and graded material.

The principal recommendations were:

- (a) A phasing out of export should begin and purchase made of a three-months supply of hides and skins;
- (b) That an organization be formed with the aim of producing better quality finished leather;
- (c) That one of the tanneries be converted into a unit to do the initial processing of hides and skins, or that the work of each tannery should be standardized as to quality control and valuation;
- (d) Assistance should be requested from international organizations.

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INTRODUCTION

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I. FINDINGS

Hides and skins

For generations the Sudan has exported hides and skins, principally to Egypt, the local consumption being rural, village shoemakers.

Supply is estimated at:

1,000,000 cattle hides

3,000,000 sheep skins

2,000,000 goat skins

This business was conducted by hide and skin merchants, who collect the skins from small depots spread over a very large and difficult terrain. Over the years they have established intimate trading relationships with their agents in the distant provinces. There is no recognized system of grading or valuation of the hides and skins.

It is estimated that about 400,000 hides are still exported by the merchants. The local demand for sheep skins is low and the bulk is exported by the private and public sectors chiefly in a pickled condition. The obvious market is export and considerable attention has been given to this in recent years with no tangible improvement.

Ten to 15 years ago, the Government established schemes to improve the quality of this national resource, e.g. the Leather Research Institute at Khartoum which, with the assistance of the Food and Agriculture Organization of the United Nations (FAO), carried out an extensive programme of hide and skin improvement.

More recently modern abattoirs have been established in or near Khartoum where the flayed skins are washed and auctioned.

The foot-wear industry

The foot-wear industry in the Sudan comprises 19 mechanized units and an unknown number of rural establishments. Two of the 19 are nationalized while the others are privately owned. Despite the fact that the factories are well equipped with machinery, they are only operating their leather foot-wear production lines at between 32-40% of capacity. The managements state that the high cost and lack of variety of finished leather (a) restricts the number of marketable products, and (b) forces them to substitute man-made (synthetic) materials.

The tanneries

The tanneries consist of three large mechanized units contracted by the public sector: one, established in Khartoum in 1963, is large and modern. It produces shoe leathers for a modern shoe factory and processes hides and skins to wet-blue or pickle for export; a second, of similar type and capacity, went into production at Khartoum last year; and a third, much larger one, is being completed at Wad Medani and will be largely export oriented. There are also a small semi-mechanized unit, under public control, and a number of small units producing pickled skins and tanned leather for the rural foot-wear manufacturers.

The estimated capacity of these publicly owned plants is ample to cope with the hides and skins available: 885,000 hides and 2,500,000 sheep skins, leaving some 300,000 hides, 500,000 sheep skins and most of the goat skins for rural tannery consumption.

The managements of the tanneries state that owing to the export of raw hides, and the lack of control of the raw hide and skin market, they are forced into the position of having to take hides of unknown quality. Therefore, they are able to form a judgement as to the suitability of the leather for various purposes only after it has been processed into wet-blue.

They are also forced to pay in excess of world market prices because the export prices for raw hides to neighbouring countries are fixed under a barter trade agreement between governments and based not on prices or weight but on a total monetary value.

The tanneries only produce hide leather in corrected grain finished sides and suede side leather. These units, like the shoe factories, are working well below capacity in the region of 35%. Prices for finished leather are high for the qualities produced.

Finished leather

Finished leather of modern variations is in short supply, thus foot-wear and finished leather products, as seen in the foot-wear factories and retail stores, are of very limited styles and lack quality.

While this applies to hide leather products, the quality of sheep skin leather is good but approximately 2.5 million pickled sheep skins are exported yearly. This is raw material which could be processed to finished leather,

thus, added value in the manufacture of leather clothing and leather goods could ensue. Industrial gloves also could be manufactured from this leather and exported.

The goat skins are inferior to the sheep skins owing to a much coarser grain texture, however, the finished leather made from goat skins is suitable for the manufacture of sandals and, if given a crushed grain finish, for certain types of specialized designs of foot-wear such as men's lined moccasins.

Large quantities of foot-wear, known as markoubs, are made for local consumption from vegetable tanned leather that is produced by the rural tanneries. While a lot of skill is used in the making of this foot-wear, it is lost by the poor quality of the leather especially in bottom or soling material. This, in fact, is not sole leather but consists of two or three layers of 1.5 to 2.0 mm leather to make up the thickness.

To produce quality goods in leather, graded and selected hides and skins are required by the tanneries. This allows the manufacturers to produce the immense amount of diversified leather articles which both local and world markets require. No such integration of raw material, leather tanning, foot-wear, leather clothing and other leather products manufacture exists in the Sudan. All the units have independent approaches to the problem. Also, particularly in the nationalized tanneries, very little cost accounting is done in the production of various types of leather. Technical management should be more involved in this field of activity in order to arrive at competitive prices for finished leather.

Leather and Plastic Industrial Corporation

The operational activities of the three nationalized tanneries, the future Gazira plant at Wad Medani, the two nationalized foot-wear factories at Bata and Omdurman, all come under the Leather and Plastic Industrial Corporation.

In the tanneries and the mechanized foot-wear factories, the technicians and the modern equipment are good. However, both are capable of greater productivity of higher quality products if the problems of controlling, selecting and grading raw hides and skins, sound legislative planning and introduction of new systems are implemented to allow the tanneries to obtain that raw material which will allow them to produce higher quantities of specialized leathers.

II. NATIONAL SEMINAR ON LEATHER AND LEATHER ALLIED PRODUCTS

9-12 MARCH 1976

Visits prior to the seminar

Before the workshop began, the experts met with the organizers of the seminar and discussed the problems of the leather industry. They also made the following visits:

4 March 1976. The experts visited the Khartoum Tannery and toured the plant. A meeting was held there to discuss raw material, techniques, chemicals, costings and systems, marketing and all fields of industry connected with leather. All persons in charge of the day-to-day technical operations of the tannery were present.

Visits were made to the Bata Footwear Factory and the Omdurman Leather and Shoe Factory, both of which are nationalized. The Bata unit is efficient and modern in all respects. The Omdurman unit is the complete reverse and had been closed for some time although the workers were still at the plant awaiting a decision on its future.

The tannery section could be used in producing for export vegetable crust leather which is similar to East Indian leather.

5 March 1976. A visit was made to the market section of Omdurman where thousands of pairs of foot-wear were displayed, mostly markoubs, canvas-uppered foot-wear and polyvinyl chloride (PVC) shoes and sandals. Numerous establishments were displaying vegetable tanned hides and skins and also large quantities of reptile and lizard skins. These had been tanned by the rural tanners.

6 March 1976. A visit was made to the privately owned Laroo Shoe Factory which has only been operating for 18 months. The machinery and equipment are excellent and the technical staff well versed in modern techniques. However, the leather uppers of the foot-wear produced lacked quality. The bottoms were made by PVC injection and synthetic unit soles. Management stated that they were forced to use man-made material because of the lack of different types of leather.

7 March 1976. Meeting and discussions were held with the general manager of the Leather and Plastic Industrial Corporation and a visit was made to the Training Institute to view the leather foot-wear workshop.

It was found that FAO had recently arranged for the installation of a number of machines. These had been connected and installed by a shoe machine company technician who had left without giving any instructions on the operation and running of the machines, which were still unused and covered.

The seminar

9-12 March 1976. The seminar was arranged by the Ministry of Industry and Mining of the Sudan to analyse and discuss the leather industry and make recommendations to improve the export of processed products. Interested parties from the ministries, the private sector and the staff of the Leather and Plastic Industrial Corporation participated. UNIDO assigned three experts in marketing, foot-wear and leather to advise and participate in the seminar. During the last six months, a thorough market survey has been carried out.

The seminar was well organized and attended by approximately 60 participants per session, representing hide and skin interests (public and private), the leather industry, the shoe industry, government departments and the university.

It was noteworthy for the quality of the papers and the honest open discussion which ensued. Everyone was made aware of the problems involved in the various sectors of the industry and those encountered in the more important specialized fields. These matters are dealt with in detail in the papers which were presented to the seminar, as listed below:

1. "Live stock - Hides and skins as a potential for industry, their improvement and standardization" by Gunal M. Ahmed
2. "Training and research in field of leather" by Ahmed H. Abbo
3. "Aims, objectives and economic importance of leather industries" by Z. Ataboni
4. "Adaptation of modern technological processes" by E.S. Tambal
5. "Marketing leather and leather products, locally and export" by K. Troka
6. "Quality control in field of leather" by I.A. Abdonur
7. "Shoe production for export" by J.W. Parkinson
8. "Production of leather for export" by J.H. Sharpouse
9. "Chrome retannage of upper leather using garad" by E.A. Gourashi

12 March 1976. Committee meeting to formulate general recommendations.

III. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The root problems are:

- (a) The continued export of raw hides and skins and the consequent inability of the manufacturers of leather and finished leather products to obtain selected and graded material;
- (b) The quality of most of the hides and skins is not good enough to allow the shoe industry to export high quality fashion shoes for which there could be a ready market at the greatest added value. There is no immediate market response for commonplace lines and production costs are not low enough to make such products highly competitive;
- (c) Apart from the export of pickled sheep skins of the top qualities (15% of bulk), export of semi-processed or finished leather has had little success as neither price nor quality is competitive in export markets. The marketing sections of the tanneries would need strengthening and to be backed by more statistical information before the products could meet international standards;
- (d) Technical equipment in both tanneries and shoe factories is very good. There are some minor problems with chemical supplies and spare-parts;
- (e) Technical know-how of the staff is very good, and adequate training is carried out;
- (f) There is a high proportion of damaged raw stock. Hides and skins improvement services are adequate but have failed to make a big impact as yet owing to the lack of incentives given to this branch of the industry to recognize the relationship between quality and price;
- (g) Purchasing of raw hides and skins on a quality/price basis does not seem to be sufficiently knowledgeable for world markets;
- (h) The relatively high price of the raw stock (i.e. in respect to its quality) appears to be established by the Private Sector Hide and Skin Merchants' Exports.

Recommendations

1. A phasing out of the exports of raw hides and skins should be implemented, with particular emphasis on hides due to their versatility in different types of finished leather and added value when processed.
2. The Leather and Plastic Industrial Corporation, together with the hide and skin merchants, should form a share-holding company on a profit-making basis to purchase all the hides and skins available in the country as phasing out of exports begins. This should cover at least three months' supply.

3. The Leather Research Institute together with the Leather Training Workshop should be incorporated with the Leather and Plastic Industrial Corporation for research into hides and skins working closely with the tanneries and the industry for the purpose of producing better quality finished leather. (Such an organization would be similar to the British Leather Manufacturers Research Association.)
4. The real value of the hides or skins selected must be established by processing to the end product (e.g. the shoe) by careful costing of cutting values (wastage at various stages and direct processing costs).
5. Technical staff must find the most suitable and economic use for each selection to avoid expensive processing of poor quality raw stock to an indifferent and uneconomic end product.
6. Particular attention must be given to those selections which prove unsuitable and uneconomical for conventional uses. It must be assumed that they have to be utilized and costed. These uses may range from production of glue, protein additive to foods, fibre for leather board, simple tannage for sale to rural shoemakers to production of pre-cut small components e.g. heel grips, linings, heel lifts, hydraulic washers, plaited leathers, laminated products, woollen stocking and woollen slipper binding. This may involve the establishment of secondary industries which can utilize relatively small pieces of hides and skins economically e.g. industrial gloves, hatbands and woollen car-garment making, pre-cut components for textile/leather combination garments (such as pre-cut cuffs, elbow pieces, bindings, shoulder ensembles).
7. Having assessed the real value of all selections, the composite value of each delivery of hides and skins can be properly assessed and a basic value price established independently of hide and skin merchant prices. Seasonal fluctuations should be identified so that appropriate action can be taken. Competitive export prices, quality grades and delivery dates can then be made. It is desirable that the private sector hide and skin merchants be directly involved and, of course, the hide and skin improvement organizations.
8. One of the tanneries should be converted into a unit which processes the bulk of the hides and skins into a condition in which accurate selections can be made e.g. unhaired, pickle, wet-blue or vegetable minimal tannage. It could also process to these stages, the skins of the private sector. Accurate valuation

of the grades could be made to set national purchasing systems. The selected grades could then be sold to the other tanneries for further processing or exporting.

9. Alternatively, the purchasing, preliminary processing, grading and costing units of each tannery should be very carefully standardized by a separate autonomous unit which would be responsible for over-all quality control of the raw material, valuation, purchases, records etc. If export is to be considered, it is essential that each tannery unit work to standardized quality control and valuation. It is essential to establish a reputation for reliability in these fields as soon as possible.

10. A request should be made for international assistance for a large scale project which would involve:

- (a) A project manager, highly experienced in tannery management;
- (b) A cost accountant;
- (c) A foot-wear technologist;
- (d) A marketing expert.

11. The Leather and Plastic Industrial Corporation should encourage the setting up of industrial leather gloves units to utilize the reject wet-blue sheep and goat skins.

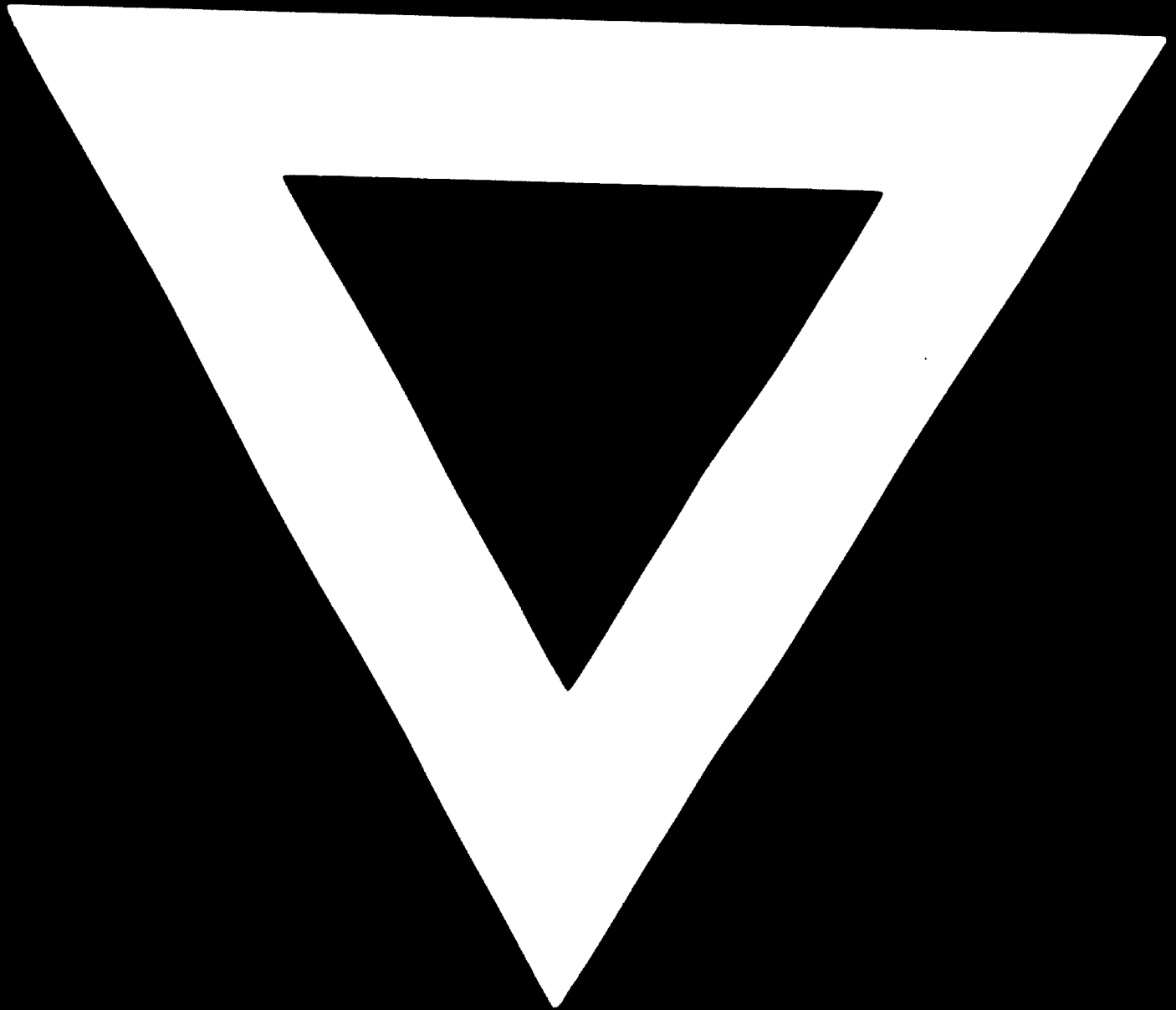
12. The excise tax on foot-wear and export tax on hides and skins should be revised to encourage the export of all articles of leather whether in the semi-finished or finished state.

13. Greater effort should be made by the nationalized industries to keep abreast of the world leather situation and markets.

14. The foot-wear factories, by advertisement in the leather and shoe journals of the world, should make known their ability to make boot and sandal uppers for export.



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