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HIDES AND SKINS, LEATHER AND LEATHER PRODUCTS  
IMPROVEMENT SCHEME

US/ETH/88/100

Terminal report\*

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

Based on the work of  
Seyoum Hailu, national expert

Backstopping Officers: Juhani Berg, Aurelia Calabro  
Agro-based Industries Branch

\* This document has not been edited.

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The work relations between the offices of UNDP, UNIDO, the counterparts and the national expert were excellent and all machinery was cleared and installed without problems and delay. The international experts' work also proceeded well and smoothly.

The backstopping officers were most instrumental in achieving the positive and successful results of the project, as were all the other staff members at UNIDO headquarters in Vienna and at the regional office in Nairobi, Kenya.

Mr. Zewdu Kebede, Head of the Animal Resources Marketing Department, Ministry of Agriculture, being the national coordinator for the raw hides and skins improvement, contributed a great deal in his field of competence and shared his experience in the preparation of this terminal report.

The national expert is highly indebted to all those people and offices referred to above as well as to others who are not specifically mentioned here, for their help and assistance in the successful execution of the activities in particular and implementation of the project in general.

**ABBREVIATIONS**

<b>ARMD</b>	<b>=</b>	<b>Animal Resources Marketing Department</b>
<b>BSO</b>	<b>=</b>	<b>Backstopping Officer</b>
<b>CTA</b>	<b>=</b>	<b>Chief Technical Adviser</b>
<b>FAO</b>	<b>=</b>	<b>Food and Agriculture Organization</b>
<b>ITC</b>	<b>=</b>	<b>International Trade Centre</b>
<b>MOA</b>	<b>=</b>	<b>Ministry of Agriculture</b>
<b>MOI</b>	<b>=</b>	<b>Ministry of Industry</b>
<b>NLSC</b>	<b>=</b>	<b>National Leather and Shoe Corporation</b>
<b>UCD</b>	<b>=</b>	<b>UNIDO Country Director</b>
<b>UNDP</b>	<b>=</b>	<b>United Nations Development Programme</b>
<b>UNIDO</b>	<b>=</b>	<b>United Nations Industrial Development Organization</b>

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## INTRODUCTION

### Background

#### 1. Regional level

The Regional Hides and Skins Leather and Leather Products Improvement Scheme, US/RAF/88/100, embraces eight national projects, namely, Ethiopia, Kenya, Malawi, Somalia, Sudan, Tanzania, Zambia and Zimbabwe. The programme is a joint effort of the three agencies UNIDO, FAO and ITC, the main executing agency being UNIDO. This type of scheme was first recommended by the UNIDO Third Consultation on the Leather and Leather Products Industry held at Innsbruck, Austria, in 1984 and a small pilot project was presented to the Regional Meeting on the Leather and Leather Industry in Africa which took place in Alexandria, Egypt, in January, 1987. The Alexandria Meeting, after its deliberation on the main constraints and shortcomings experienced in Africa, sanctioned the scheme to cover a larger group of African countries. The scheme was then presented to and endorsed by the first session of the FAO Inter-Governmental Sub-Group on Hides and Skins, Rome, Italy, held in January 1987.

The studies prepared and research conducted for the UNIDO global leather sector consultations and the deliberations of the UNIDO Meeting on Leather and Leather Products Industry in Africa, and the FAO Inter-Governmental Sub-Group Meeting on Hides and Skins in Rome, have all clearly proven that there is an enormous waste of raw hides and skins, under-utilization of production capacities, low productivity and lack of trained personnel at all levels of the African hides and skins, leather and leather products sector. At the same time, the potential of some of the African countries to become major suppliers of semi-processed leathers to the export markets and to produce finished leather products for their own markets is excellent and based on a large indigenous, replenishable raw material source of cattle hides and petty ruminant skins. This potential could be realized with the help of a major sectoral technical assistance programme.

The purpose of the regional umbrella project is to obtain maximum benefits from and utilize in the most economic way possible the international inputs for the participating countries, while catering to their specific needs in individual national projects. This particular structure is justified on the grounds that:

- the national projects need a number of common international inputs;
- there is to be a maximum of flexibility in responding to individual national needs, and inputs are to be on call on both a timely and appropriate basis;
- inputs are to be provided in a complementary way between countries and national institutions should not duplicate each other in their entirety;
- maximum utilization is made of various national facilities to serve regional needs.

The overall administration of the scheme and coordination of inputs are done by two project officers at UNIDO headquarters in Vienna. The CTA and his team are located at the Kenya Industrial Research and Development Institute (KIRDI) Leather Development Centre in Nairobi, which serves as the regional project headquarters. From these regional headquarters the CTA supervises the activities of the international experts and subcontractors, as well as those of the national expert appointed in Ethiopia. Through seminars and workshops at various national institutes information on the technological aspects and issues of the improvement scheme were disseminated on the regional and country levels.

## 2. National level

The findings of the preparatory assistance phase again confirmed that the situation prevailing in other countries is also true for Ethiopia and initiated the national project US/ETH/88/100.

The country project concentrates on direct assistance, through expert and subcontract services, which was put into effect, firstly, in the hides and skins improvement sector and, secondly, in the rehabilitation of selected tanneries and leather product industries. These rehabilitation objects were subject to a careful study which established the baseline data and clear rehabilitation outputs. Part of the rehabilitation of suitable objects also came from the parallel project US/RAF/88/102, Regional Tannery Rehabilitation Scheme.

## 3. Ethiopia

In Ethiopia, government efforts to improve hides and skins production, collection and quality was formally organized some 25 years ago under a board, with appropriate rules and regulations. In addition to regular extension activities, projects were initiated and implemented. From slaughter of 1.9 million cattle, 7.9 million sheep and 6.5 million goats collection was estimated to be 1.3 million (68 per cent) hides, 7.4 million (94 per cent) sheepskins and 5.9 million (91 per cent) goatskins. Quality-wise, although there is no technical grading, a commercial grade mix of 40-50-10 per cent of first, second, third grades correspondingly has been in practice nationwide. This disparity between production and collection, especially of hides, and low raw material quality required further external assistance to bring about worthwhile improvement.

The same is true for the Southern Ethiopia region, selected for development under UNIDO funding. During the project's preparatory mission slaughter estimates were 385,000 cattle, 640,137 sheep and 753,320 goats. The collection estimates were 153,303 (40 per cent) hides, 587,435 (92 per cent) sheepskins and 257,676 (34 per cent) goatskins, which, except for sheepskins, was very low. The quality was also low at 50-30-20 per cent for hides, 42-38-20 per

cent for sheepskins and 39-37-24 per cent for goatskins. The mission indicated that without enhancing the recovery rate of the hides and skins and the improvement of the raw material quality the further development of this industrial sector will experience serious constraints. Therefore, it recommended that emphasis should be given to the implementation of an effective hides and skins improvement programme. The mission also projected that with appropriate inputs collection over the project's life would improve by 10 per cent for the first two years and by 15, 10 and 20 per cent during the third year for hides, sheepskins and goatskins, respectively. Concerning quality grade the improvement was expected to remain on the existing level or to show some progress at the end of the project.

#### 4. Source of funds

The total budgets of both the regional and national projects amount to over US\$ 120 million. Seven countries, namely, Austria, France, Finland, Germany, Italy, the Netherlands and Switzerland, contributed to the projects. Italy donated some US\$ 4.5 million of the programme budget and also financed the US/RAF/88/102 rehabilitation scheme in the amount of US\$ 4.5 million.

The Government of Switzerland provided the funds totalling US\$ 1,022,402, including 13 per cent support costs, for the national project US/ETH/88/100. The contribution of the Ethiopian Government in the form of salaries, DSA, facilities rendered, fuel and maintenance, etc., is estimated to be more than Birr 512,910.

#### 5. Commencing dates

The regional project was started early 1989 while the national project commenced with the appointment of the national expert on 1 July 1989.

#### 6. Justification

The national project, if correctly implemented, was expected to directly benefit the primary producers (i.e., Ethiopian farmers and herdsmen) while increasing at the same time the export income of the country through greater export of semi-processed leather and leather products. This in turn was to provide additional employment opportunities and provide the international leather market with much needed additional material.

#### 7. Objectives of the project

##### (a) **Development objectives**

To contribute to the improvement of the country's and the region's economy, create new employment opportunities, improve export performance, increase the income



of the primary producers, and provide the international leather and leather products market with additional semi-processed raw materials and finished products.

**(b) Immediate objectives**

- (i) Establish a national pilot scheme and demonstrate, in practical terms, the process of hides and skins improvement from butchering and playing to conservation, grading and collection;
- (ii) act as a catalyst to national authorities to introduce incentives for improved quality performance;
- (iii) rehabilitate existing infrastructures and selected leather tanning and processing plants by increasing their efficiency and capacity utilization, upgrading technical standards, operational methods and skills, product quality and marketing performance, as well as knowledge of those attached to these industries at various levels, starting from primary producers.

## **RECOMMENDATIONS**

1. Ethiopia is at present in a period of transition, that is, from a centrally-planned economy to a market economy. During the centrally-planned economy the state was the sole owner of all important production units. Many things went wrong and the economy of the country is now in a state of collapse. However, the Transitional Government of Ethiopia has issued a new economic policy which gives investment opportunities for private investors, both from within and outside the country. All state manufacturing units are now sanctioned to operate freely and the managements of the state institutions are given autonomy to run their day-to-day-operations as they see fit and economically viable. In the absence of experience in running operations freely and independently, the assistance of institutions like UNIDO, UNDP and others should be intensively sought now. This is particularly true for the leather subsector.
2. In order to sustain and guarantee continuity of the positive results so far achieved both in the hides and skins improvement and the rehabilitation programmes undertaken in Phase I, the programme must continue. This is, in fact, the wish of the counterparts and they are eagerly looking forward to the second phase.
3. Many recommendations were made by the in-depth evaluation team, members of the tripartite review meeting and the international experts fielded on the project. It is the strong belief of the national expert that priority and due attention should be given to their implementations by the Ethiopian Government.
4. As recommended by the in-depth evaluation team, it is very essential to continue the programme through a follow-up phase with the main emphasis on finished leather, footwear and leather goods. The recommendation that the hides and skins improvement activities be financed

by the "revolving fund" - which, in fact, is also endorsed in Ethiopia - is a novel idea as this arrangement will involve the final consumers or users of the raw materials in its development.

5. As the NLSC, the major partner in the project, has now ceased to operate in the manner it used to do, UNIDO must make special efforts to assist in establishing a leather and leather products industry association. At present, the footwear industries are in the process of forming their own association.

6. In the light of the changed situation in the country, i.e. the state production units being autonomous and having no leverage over the private tanners, footwear and leather goods producers, UNIDO's presence in the country to assist the industry subsector technically, financially and materially is very essential and appreciated. As records in the leather subsector evidence, most of the NLSC's achievements are to a large extent attributable to the efforts and assistance of UNIDO since the 1970s and these must continue in order to obtain much better results.

7. US/ETH/88/100 has revitalized the activities of the hides and skins improvement in the country which have been quite dormant over the years. Furthermore, the project has formulated a general framework and policy guidelines which the country must pursue/follow to increase the quantity and improve the quality of hides and skins. In order to secure follow-up by UNIDO that due consideration is given to these proposed/recommended policy guidelines, Phase II has to be implemented.

8. The economic policy prevailing at the moment is more receptive to trading by grades and giving incentives for better quality of hides and skins than what was practised under the previous economic system. The word incentive will no longer be an alien concept. In fact, the present Government is much more willing to let the primary producers be the prime beneficiary of their own resources. It also made it public that in future there will be no interference in the formation and running of the day-to-day-operations of the farmers' cooperatives and associations. In Phase II the introduction of incentives based on quality performance will be much more achieved than in Phase I.

9. The construction of slaughter slabs rather than curing sheds must be targeted so that more killings or slaughtering will be done in public facilities than in private households. This will give ample opportunity for the extension officers to control the flaying and ripping of the hides and skins from the animals.

10. Much effort must be exerted by the country with respect to controlling the effluent discharges from the factories. With regard to the leather industry, all effluents from the tanneries are, at present, discharged directly into rivers. Therefore, action has to be taken without undue delay to curb the environmental hazards caused by these effluents. UNIDO's assistance in formulating laws and regulations to control effluent is highly essential, as well as

in prevailing on the Government that these laws and regulations are enforced and the tanneries start to build effluent treatment plants.

11. The activities undertaken and the results achieved in Phase I have been appreciated by many and the Government of Ethiopia. Due to the benefits accrued by the counterparts and the country, it is the express desire of the whole industry, including both the state and private factories, that the project be continued. It is, therefore, the considered opinion of the national expert that Phase II must become operational as planned.

## I. ACTIVITIES AND OUTPUTS

On the national level, the project was expected to produce seven outputs.

### A. Output 1

*Improved policy guidelines and industrial strategy for the development of the country's hides and skins, leather and leather products industry. This will be in the form of a country document specifying, firstly, the national aspects and, secondly, the connection with regional strategy.*

All pertinent data and information with regard to existing policy guidelines and industrial strategy for the development of the subsector in the country were submitted in due time to the regional office in Nairobi. These were passed to the marketing expert and a consultant who analysed the available material and prepared a comprehensive report on improved policy guidelines and industrial strategy for the development of hides and skins, leather and leather products, suitable for Ethiopia as well as for the region.

The recommendations made by the expert and consultant were submitted to the relevant government authorities, namely, the Ministry of Agriculture, Ministry of Industry and the NLSC for their views and actions. They were also presented to the FAO Inter-Governmental Sub-Group Meeting on Hides and Skins in January 1987.

The highlights of the recommendations are as follows:

1. To obtain a better quality of raw hides and skins and increase the quantity collected, rampant backyard slaughtering must be eliminated and all slaughtering must be done in centralized slaughterhouses/abattoirs which are equipped with adequate facilities, i.e. water and flaying tools.
2. To strengthen the activities of hides and skins improvement, the Government must enforce the existing legislation on how the trade is conducted and introduce grading systems as well as train the extension officers through repeated refresher courses.
3. Due to the low off-take rate of cattle, the Government must avoid increasing the number of tanneries but rather utilize the idle capacity of existing ones.

4. Ethiopia must gear all its efforts to increasing and expanding its leather finishing capacity of both hides and skins. Because of the complexity of the technological and high fashion requirements, the country must be able to fully utilize its experienced manpower in the production and marketing of leather and leather products, as well as external assistance in the early stages of implementation.
5. To keep abreast with the progress of the development of the sector, the Government must invest more into training and commit more foreign exchange in the investment of footwear and leather goods manufacture. The external assistance must also be able to support these initiatives of the Government.
6. Ethiopia must realize that industrial development takes place in harmony with environmental protection and conservation. Therefore, it is high time that the future of leather industry in the country be safeguarded from being jeopardized and incurring unnecessary high cost in the future, by investing more resources now in effluent treatment plants.
7. A coordinated effort is needed for a sectoral development by pooling all resources within the hides and skins, leather and leather products sector.

The existing Hides and Skins Improvement Proclamation has been revised and submitted to the previous and present governments of Ethiopia. Also a new agricultural and livestock sector policy, including hides and skins improvement, was prepared and submitted to the Government and its implementation is foreseen in Phase II of the Project.

#### **B. Output 2**

*Established and/or rehabilitated, well-operating national hides and skins improvement scheme with trained flayers, skimmers and improvement officers, and better tools and chemicals for conservation.*

This output has proceeded satisfactorily in the target areas.

A one-week orientation seminar for forty extension officers was held in the target area in order to brief them on the objectives and activities of the project. They were also given copies of the "Hides and Skins Improvement Manual" to use as a guidebook in their day-to-day activities. Also, selected extension staff, without previous training in hides and skins grading and marking, attended a hides and skins improvement course at the Productivity Improvement Centre.

Refresher courses were given for 60 hides and skins workers on ripping, flaying, curing methods and trade practices, etc. in different localities.

Two senior and seven extension officers from the MOA went on study tours to see hides and skins improvement operations in other countries, namely, Germany, India, Kenya, Switzerland, U.S.A., Zambia and Zimbabwe. Four of these officers attended the Regional Hides and Skins Improvement Seminar held in Bulawayo, Zimbabwe. These arrangements also

boosted the morale of the officers and acted as incentives to improve work efficiency and effectiveness.

With regard to better tools, the project supplied:

- 650 ripping and 1,100 fleshing (skinning) knives for distribution to hides and skins workers, i.e. butchers, flayers, etc. in the target area;
- 60 sets marking hammers including 120 pieces marked with "H" and "S" letters, 85 pieces marked with "S", "N", "O", "B" letters, 240 pieces marked with "1", "2", "3", "4" numbers and 100 sealing pliers for the purpose of hides and skins quality control.

Two pick-up vehicles and ten motorbikes were also delivered to the MOA. These were distributed to the four administrative regions, namely, Sidamo, Borena, North Omo and South Omo, covered by the project and facilitated the easy mobility of the extension officers and supervisory staff.

The above steps taken by the project helped to effect the desired improvement in the collection and to improve the quality grades of hides and skins in the target area.

### C. Output 3

*Improved statistical intelligence throughout the region. A uniform statistical report will be provided periodically to the regional office for analysis and transmission to UNIDO/FAO/ITC for further monitoring and dissemination.*

The ARMD of the MOA, with the assistance of the international expert for hides and skins improvement, introduced forms (Annex I) for individual assessment in Awraja at regional and zonal levels, to be prepared and submitted on a monthly basis. Since April 1990 these forms are being completed and sent to the head office in Addis Ababa where they are consolidated and analysed in order to prepare reports that will go to UNIDO Vienna and the regional office.

However, statistical information is not easy to obtain from rural areas, especially from those covered by the pilot scheme. But a great effort is being made by the ARMD/MOA to collect whatever statistical information is available. The Ministry has indicated its interest to participate in a project/programme for the improvement of the statistical process which is planned to be undertaken by UNIDO's PPD/IPP/Statistical Unit and may take place during the second phase.

### D. Output 4

*Improved quality and increased quantity of raw hides and skins through incentives to primary producers, and a realistic quality grading system, based on a well-operating hides and skins improvement scheme (as per output 2).*

Especially Ethiopian skins of sheep and goats are traded locally on the basis of table runs excluding rejects. Thus, there is no grading system as such in the trading while there is a technical grading of sheep- and goatskins. All skins that are accepted are paid the same price, irrespective of their quality. However, cattle hides are traded on the basis of grades normally ranging from grades I to IV and fetching prices according to grades.

However, in order to give incentives to the primary producers, the MOA and the NLSC, as the number one buyer, have reached an agreement whereby the latter pays Addis Ababa prices, which are normally higher than in the other regions (sources), for the target area's productions of raw hides and skins according to quality grades. A grading system or norm still exists in the country but is not implemented strictly both by buyers and sellers. The MOA presented proposals of prices according to type and grade of raw hides and skins. The Guidelines for Grading of Hides and Skins by Quality were presented at the FAO Inter-Governmental Sub-Group Meeting on Hides and Skins in January 1987.

The marking hammers, letters and numbers, as well as the sealing pliers supplied by the project are used to identify and grade the raw hides and skins collected from the four regions.

#### E. Output 5

*Revolving fund to be utilized for further improvements and building of additional facilities, namely, curing sheds, collection centres and slaughtering slabs. It is expected that a small fee of Birr 0.50/hide, Birr 0.25/skin of sheep or goat will be levied on those collected through the new collection centres established by the project.*

It is envisaged, according to output 2, that six fully equipped hides and skins curing sheds will be set up/constructed in selected areas of the Awassa zone target area. The budget for the sheds was allocated in 1987 during the preparatory assistance phase mission. By the time the project started in mid-1989, the cost of construction materials in the country rose excessively and the budgeted amount only allowed the building of two curing sheds.

At the time of report writing, work has been completed in two locations to erect the sheds. The one at Boditi is finalized and operational since October 1992. The second shed at Awassa is also completed but the operations are delayed due to some problems between the local butchers and the cooperative.

Due to the delay in the construction of the sheds, the expected fees from the hides and skins collected through the sheds can only be realized during the second phase of the project.

The delay is further aggravated by security problems experienced in the regions, shortage of fuel for vehicles, the distance from the capital city, etc.

## F. Output 6

*Rehabilitation of selected tannery, shoe factory and leather goods plants to improve productivity and train personnel.*

The rehabilitation programmes were carried out very smoothly and systematically. As a result, this output is by far the most successful in Ethiopia. The output was further strengthened and complemented by the regional project US/RAF/88/102 "Regional Tannery Rehabilitation Scheme".

Awash Tannery and Anbessa Shoe Factory were the main beneficiaries while Modjo Tannery and Dire Tannery (Private) also benefited.

### 1. Awash Tannery

UNIDO's contribution towards the rehabilitation in terms of equipment and machinery was US\$ 795,919 while the tannery assumed the local costs for clearing, installation and other related incidental expenses. In general, the rehabilitation resulted in better factory and production layout, increase of production capacities, improved quality of production, and the tannery's production has moved from wet blue to crust. Specific improvements achieved by each machine are detailed later in the report.

### 2. Anbessa Shoe Factory

The total UNIDO contribution for the rehabilitation was US\$ 254,839 including spare parts worth US\$ 31,739. Here as well, the factory covered the costs of clearing, installation and other related incidental expenses. From the rehabilitation scheme Anbessa benefited by an increase in production capacity, a systematic and orderly production flow, improvement in quality, improvement in labour productivity and improved production control as well as better supervision etc. The specific benefits accrued from the rehabilitation are described in a later chapter of the report.

### 3. Dire Tannery and Modjo Tannery

UNIDO supplied a tanning drum and a fleshing machine worth US\$ 134,760 to Dire Tannery and a fleshing machine to Modjo Tannery amounting to US\$ 42,180.

### 4. Others

- Miscellaneous laboratory equipment valued at US\$ 410 was supplied to the Productivity Improvement Centre.

- Vehicles, motorbikes, marking tools and knives delivered to the ARMD/MOA were worth US\$ 58,013.

- A vehicle, a photocopying machine, a video camera, VCR, TV, overhead/slide projectors worth US\$ 20,967 were delivered to the national expert's office for use of the project.

- With regard to training, 13 employees from Awash Tannery and Anbessa Shoe Factory were on study tour to familiarize themselves with the operation and maintenance of the new machinery supplied to the factories. The costs of these study tours were financed by the national project and amounted to over US\$ 55,000 financed by the regional project.

- Twenty tannery mechanics participated in the Regional Tannery Maintenance Seminar held in Addis Ababa, Ethiopia, while eight senior tannery production technicians and three senior technicians from the NLSC, Awash Tannery, and the Ministry of Industry attended the Regional Leather Tanning and Finishing Seminar and the Regional Waste Treatment Control Seminar held in Nairobi, Kenya.

- Two employees from Universal Leather Goods Factory also attended a three-week training course in the production of leather articles held at Morogoro, Tanzania.

- Two Kenyans from the Leather Development Centre in Nairobi carried out a three-week on-the-job training at the Universal Leather Goods Factory.

#### **G. Output 7**

*A list of suitable technical, marketing and/or joint venture partners for tanners and leather products manufacturers. Through meetings and contacts between individual partners, discuss concrete collaboration opportunities.*

With regard to this output, a senior management consultant visited the country and identified three factories in the footwear and leather products sector to participate in the Export Promotion and Joint-Venture Meeting held at the Pirmasens fair in Cologne, Germany, between 2 - 7 November 1992. The factories were Universal Leather Goods Factory, Mampo of Anbessa Shoe Factory and Ras Dashan Shoe Factory (Private).

Two international experts in leather articles and footwear visited the factories and identified the samples to be exhibited at the fair. Contacts and visits to interested individual companies were arranged during the two days after the fair.

## **II. ACHIEVEMENT OF IMMEDIATE OBJECTIVES**

### **A. Objective 1**

1. *To establish a national pilot scheme and to demonstrate, in practical terms, the process of hides and skins improvement from butchering to conservation and collection.*

Awassa zone was established as the target area covering four administrative regions, namely, Sidamo, Borena, North Omo and South Omo. Through constant travels to the target



areas, the international hides and skins improvement expert and the national coordinator were able to revitalize the activities of the process of hides and skins improvement from butchering to conservation. Training programmes were prepared and effected for the extension officers, butchers, flayers and traders of raw hides and skins. The necessary tools, like flaying and ripping knives, were distributed in the regions and the extension officers were supplied with handbooks and motorbikes for ease of mobility to reach the primary producers.

Collection of hides and skins in the project area was established at 153,303 cattle hides, 587,435 sheepskins and 257,676 goatskins (tables 1 and 2, and figure 1, show quarterly and annual collections). A comparison of these indicates a reduction in collection during 1991 for both hides and skins. But by 1992 collection had increased by 8 per cent for hides and by 13 per cent both for sheepskins and goatskins. Compared with projections at project preparation, i.e. a collection increase of 10 per cent in all cases, improvement during 1991 (year two of project) was below expectation for hides but quite satisfactory for both sheepskins and goatskins.

An examination of the quarterly figures shows considerable variations for hides and goatskins while sheepskin collection is quite constant. The exception being the April-June quarter, in all cases, when collection was much higher, especially during 1992. This follows the orthodox Christian lent (fasting season) when there is a two-month period of non-fasting (including the normal fasting days of Wednesdays and Fridays), responsible for increased slaughter and consequently increased hides and skins production and collection.

Table 1 - Quarterly & Annual Collection and Technical Grades of Hides & Skins, 1990

Time	Item	Collection	Grades				
			I	II	III	IV	R
1. April-June 1990	Hides	34,441	54	29	13	4	-
	Sheep skins	146,062	47	32	18	3	-
	Goat skins	43,194	42	34	23	1	-
2. July-Sep. 1990	Hides	21,269	46	29	17	7	1
	Sheep skins	123,138	54	29	12	5	-
	Goat skins	20,793	41	30	22	6	1
3. Oct.-Dec. 1990	Hides	41,063	58	21	13	8	-
	Sheep skins	128,371	43	31	21	5	-
	Goat skins	68,672	38	31	28	7	1
4. Jan.-Mar. 1991	Hides	26,798	50	29	14	6	1
	Sheep skins	100,832	56	26	14	4	-
	Goat skins	85,386	46	29	19	6	-
Annual April-1990 to March 1991	Hides	123,571	52	27	14	6	1
	Sheep skins	498,403	50	30	16	4	-
	Goat skins	218,045	42	31	22	5	-

Table 2 - Quarterly &amp; Annual Collection and Technical Grades of Hides &amp; Skins, 1991

Time	Item	Collection	Grades				
			I	II	III	IV	R
1. April-June 1990	Hides	88,103	49	26	17	6	2
	Sheepskins	353,882	55	25	15	4	1
	Goatskins	156,487	50	29	17	4	-
2. July-Sep. 1990	Hides	21,513	44	28	20	6	2
	Sheepskins	123,186	52	26	17	4	1
	Goatskins	52,506	45	31	18	6	-
3. Oct.-Dec. 1990	Hides	33,362	52	25	15	7	1
	Sheepskins	103,409	54	23	15	5	3
	Goatskins	51,474	52	26	18	4	-
4. Jan.-Mar. 1991	Hides	22,298	51	29	12	6	2
	Sheepskins	81,394	63	22	11	2	2
	Goatskins	31,502	59	25	44	2	-
Annual April-1990 to March 1991	Hides	165,276	49	27	16	6	2
	Sheepskins	661,871	56	24	15	4	1
	Goatskins	291,969	52	28	16	4	-

### 1. Hides and skins quality

Implementation of technical grading was effected since March 1991 with the beginning of actual marking of graded hides and skins within the target area.

Project appraisal indicated that with project inputs there would be "a continuation of existing quality or some improvement". Analysis of field data concurs with this projection (see tables 1 and 2 and figures 2 and 3). For cattle hides, there was some improvement during 1991 which was lost during 1992. If grades 1 and 2 are combined it shows a slight decrease in quality. For sheepskins there was practically no change in the combined two upper grades. But separately grade 1 has shown a considerable improvement of 19 per cent and 12 per cent for the first and second years respectively. As for goat skins, there was a slight loss of quality during year one but an impressive improvement during year two in which grade 1 quality improved by 33 per cent.

### 2. Defects analysis

A preliminary defects analysis indicated flay cuts, putrefaction and branding (for hides) to be the main defects in the project area. In general this proved to be correct by the analysis of the data gathered during the past two years.

During 1991, flay cuts were 11 per cent for hides and 10 per cent both for sheep- and goatskins. Putrefaction was lower at 6, 5 and 7 per cent for hides, sheep- and goatskins, respectively. Branding, a problem mainly of hides, was 8 per cent for the year. Another defect of economic importance was the poor shape which was brought about by wrong ripping during the process of slaughtering; this was 6 per cent for hides and sheepskins and 7 per cent for goatskins.

During 1992, the level of these defects in cattle hides remained the same as in the previous year, except for branding which grew worse by 1 per cent. Also for sheepskins deterioration was registered for all the defects; but in the case of goatskins putrefaction showed an improvement of 1 per cent.

In spite of the small deterioration recorded in some of the quality defects, it should be noted that the quality and quantities obtained from the target area have been practically maintained. This is quite an achievement when taking into consideration the political / economic problems and the civil disturbances which the country experienced during the project's implementation. It must be realized that due to these problems project work in the target area was not possible for extended periods.

#### **B. Objective 2**

*To act as catalyst to national authorities to introduce incentives for improved quality performance.*

To be able to introduce incentives for improved quality of performance, trading on grades should be introduced. Although there are grading systems for raw hides and skins, it is applicable in Ethiopia only for bovine hides. The ARMD/MOA, in collaboration with the NLSC, tried to introduce trading of skins by grades, but this was not realized because of difficulties experienced in the country over the last two years.

However, to achieve this objective in future, the project must assist in establishing a leather association as the NLSC will be dissolved in the light of the new economic policy which will be more of a free-market than centralized-market orientation. The ARMD/MOA must be able to develop, with this leather association, a framework by which the raw hides and skins producers will receive a financial incentive based on improved quality performance. In other words, trading of hides and skins must be done on the basis of a grading system.

The hides and skins prices prevailing during the course of the project are shown below. The price structures and the system of their determination are also described briefly.

Table 3 - Hides and Skins Prices - Addis Ababa, Prices (Birr/kg or pc)

Item	Grade	Oct. '87	July '91	Oct. '91
<u>Cattle hides</u>	1	2.29/kg	2.65/kg	2.65/kg
	2	2.06	2.41	2.23
	3	1.88	2.23	2.23
<u>Sheepskins</u>				
Wet salted	40/50/10 mix	6.96/pc	7.60/pc	6.35/pc
Air dried	" "	6.96	7.10	5.85
<u>Goatskins</u>				
Wet salted	40/50/10 mix	4.35/pc	5.50/pc	3.50/pc
Air dried	" "	4.10	5.00	3.00

These prices are, in principle, fixed centrally every three months by a committee composed of the Ministry of Trade, the NLSC and the MOA. The prices indicated above are those existing at project preparation (October 1987), at peak price (July 1991) and the last/existing official price (October 1991). They are prices paid to traders on delivery at central stores or tanneries in Addis Ababa. Primary producers in production areas are paid lower prices, fixed by the MOA after deducting transport costs according to distance from Addis Ababa and road conditions, remoteness of sites, labour costs and allowance for a profit margin to the traders.

World prices have a bearing on domestic prices, indicated by the increase in prices from the time of project preparation to November 1990 and continued until July 1991. Then they declined until August 1991 when a provisional price was fixed with the hope that prices may recover during the then forthcoming Leather Fair at Paris. But during the September 1991 Paris International Leather Fair the trend indicated a further decline except for cattle hides. Therefore, the August prices were fixed and there was no change since October 1991 until the time of report writing. The low prices had the effect of lowering the quality of hides and skins being produced as well as reducing the collection.

### C. Objective 3

*To rehabilitate existing infrastructures and selected tanning and processing plants by increasing their efficiency and capacity utilization, upgrading technical standards, operational methods and skills, product quality and marketing performance, as well as knowledge of those attached to these industries at various levels starting from primary producers.*

The rehabilitation programmes carried out were outstandingly successful. Firstly, they were performed to the satisfaction of the parties involved within the shortest time possible. The project obtained the equipment and machinery without delay and the beneficiaries installed them instantly. The benefits accrued and the advantage gained from the rehabilitation were as follows:-

1. Awash Tannery

(a) **Full hide fleshing and splitting machines**

Processing of hides in full resulted in increased productivity and yield as well as in improved quality. When fleshing in full, the tannery was able to flesh 62 hides and split 24 hides more every hour than processing in sides. The yield in split has considerably increased from 4 sq.ft to between 6 and 8 sq.ft per full hide. This increase in yield is estimated to bring an additional revenue of Birr 70,588/year.

(b) **Staking machines for skins**

The staking process was a bottleneck in the productions of crust sheep and goatskins. With the installation of four staking machines, the tannery is able to stake around 500 to 700 skins per hour. The machines stake the leather flat, a condition which was not achieved before, and improved the quality of the crust skins. An area increase of about 6 per cent was achieved over previous staking machines, which is estimated to bring an additional revenue of Birr 184,642/year. Furthermore, loss in area and grade due to deformation by tearing caused by the machines is now avoided.

(c) **Overhead driers**

Crust sheep- and goatskins as well as bovine hides were previously dried by hanging on the ceiling of the tannery after holes were made at the edges of the hides/skins. This exposed the skins and hides to dust, uneven drying and loss in area. With the installation of the two overhead driers the following advantages are being obtained.

(i) *Increased productivity*

Previously about 800 skins could be dried in the open air in three days. Now, with overhead driers, 4,000 skins can be dried in 24 hours.

(ii) *Efficient drying system*

There is less variation of drying caused by change of weather conditions. Thus, with the overhead drying the leather is uniformly dried. The leather remains flat and feels softer than the leather produced with the previous drying system.

The danger to workers from falling leather is avoided. More floor area is available for the movement of material and for better layout in the tannery. Due to increased productivity and efficiency, the tannery is able to save Birr 161,000/year.

**(d) Retanning drums**

Of the six drums delivered to the tannery, two are in the skin department where they have enabled the tannery to retan additional 800 pieces of wet-blue sheepskins to the crust daily.

The four drums installed in the hides department have enabled the tannery to remove down-time and wastage of chemicals due to leakage of the old drums.

**(e) Soaking drums**

With the installation of the two soaking/liming drums the tannery was able to increase its daily throughput from 6,000 kg to 7,500 kg (dried weight) hides. The quality of the hides was also improved through the possibility of reducing the load per drum from 3,000 kg to 2,500 kg.

**(f) Dry shaving machine**

Dry shaving helps to make the leather very soft. This process is very useful for the production of garment and glove leathers. With the two dry shaving machines the tannery can produce much softer skins which upgraded the quality by 15 to 30 per cent. Because of better shaving, the amount of fat liquors applied on the skins and leather can be reduced. Due to these improvements, the tannery is able to save Birr 143,467 and Birr 2,508 per year, respectively, on the production of garment skins and leather.

The total benefit accrued to the tannery from the rehabilitation can be estimated at up to Birr 562,205 per year. Besides this benefit, the tannery was not burdened by the heavy foreign exchange requirement of US\$ 795,919 for the procurement of the machinery.

**2. Anbessa Shoe Factory**

Major rehabilitation work was done in this factory where two automatic conveyors and a number of shoemaking machines were installed, which resulted in a number of improvements in the shoe production:

**(a) Production increase and productivity**

The factory used to produce 1,600 pairs/day in two shifts of 16 hours. However, since the rehabilitation, the production capacity of the factory went up to 2,500 pairs per day in a single eight-hour shift. The highest production figure so far reached, with

intermittent raw materials flow, is 2,142 pairs or 86 per cent of the total production capacity.

The conveyors helped to improve work discipline as the work flow follows the rhythm of the conveyors' speed set by the production head. Hence, labour productivity has increased. The production flow was reorganized by synchronizing the inputs, i.e., uppers, insoles, soles etc., which used to be haphazard.

**(b) Quality improvement**

Although a great deal of improvement is still required, the quality of shoes produced shows some progress.

**(c) Production flow and layout**

The installation of the conveyors resulted in an orderly production flow and layout, thereby leaving enough space for movement and reducing also the handling operations. Besides, the new conveyors and shoe machines created a good working environment and more production/floor space. The beginning and the end of the closing operation being at the same place (when using conveyors), sorting of lasts became very easy. Internal transport decreased and the conditions for material handling are better.

**(d) Labour**

The rehabilitation brought about a reduction in working hours from 16 to 8 hours. The number of workers in the closing department is reduced by 23 per cent, i.e. 34 workers were transferred to other departments within the factory. Supervision and control have become easier and production backlogs can be spotted without difficulty so that remedial action can be taken without delay.

**(e) Financial gains**

The achievement in financial terms due to the rehabilitation is tabulated as follows:

<u>Production in Pairs</u>				
Product type	Unit	Before 1989/90	After 1990/91	%
Gents	Pairs	162,345	343,753	
Ladies	Pairs	39,943	20,725	
Children	Pairs	<u>52,078</u>	<u>66,940</u>	--
<b>TOTAL</b>	<b>Pairs</b>	<u>254,366</u>	<u>431,418</u>	<u>+70%</u>

Sales (in Value)

Product type	Unit	Before 1989/90	After 1990/91	%
Gents	Birr	5,003,473	10,790,407	
Ladies	Birr	919,488	545,689	
Children	Birr	<u>899,387</u>	<u>1,299,975</u>	—
<b>TOTAL</b>	Birr	<u>6,822,348</u>	<u>12,636,071</u>	<u>+85%</u>

3. Dire and Modjo Tanneries

Machinery was delivered to these two tanneries. Dire Tannery is the only private tannery that benefited from the project. The supply of one tanning drum and one fleshing machine has alleviated the production problems faced in these sections. A fleshing machine supplied to Modjo Tannery helped to remove the bottleneck in the fleshing operation.

4. Training

As mentioned before in the report, a number of study tours and seminars were arranged during the course of the project.

The training inputs for both regional and national projects were as follows:

- (a) **Study tour of Messrs. S. Hailu/Z. Kebede**  
 Period: 26-28 April 1989  
 Place: Nairobi  
 Agenda: Briefing seminar on the activities of US/RAF/88/100 and associated national/country projects.
- (b) **Study tour of Messrs. S. Hailu/Z. Kebede**  
 Period: 20-24 May 1989  
 Place: Philadelphia, U.S.A.  
 Agenda: U.S. Hide, Skin and Leather Association Seminar in curing, grading, shipping and receiving of hides and skins as well as tanning and finishing of leather.
- (c) **Study tour of Mr. S. Hailu, National Expert**  
 Period: 15-20 September 1989  
 Place: Paris  
 Agenda: "Semaine du cuir".
- (d) **Study tour of Mr. Tesfaye Arega, NLSC**  
 Period: 15-19 October 1989  
 Place: Philadelphia, U.S.A.  
 Agenda: XX<sup>th</sup> Congress of the International Union of Leather Technologists and Chemists Societies (IULTCS)
- (f) **Study tour of Messrs. S. Hailu/Z. Kebede**  
 Period: 23-31 January 1990  
 Place: Addis Ababa, Ethiopia  
 Agenda: PTA Leather Fair



- (g) **Study tour of Messrs. G. Fetene/B. Dibaba, Awash Tannery**  
 Period: 14 February - 3 March 1990  
 Place: Arzignano, Italy  
 Field: Tannery Machinery  
 Agenda: Visits to machinery suppliers Poletto, GE.MA.TA., Pajusco Technologies, FBG, GER and Fenice
- (h) **Study tour of Messrs. A. Mamo/M. Asfaw/S. Tadagiw, Anbessa Shoe Factory**  
 Period: 24 March - 14 April 1990  
 Place: Vigevano, Italy  
 Field: Footwear Machinery  
 Agenda: Visits to machinery suppliers Torielli, Atom, Simac, Matic, Officine Meccaniche Romano, Sigma, Secom, Ellegi, Duer, Sultaning, Giardini and Licia
- (i) **Study tour of Messrs. Y. Mengesha/Y Kasse, Awash Tannery**  
 Period: 10-23 June 1990  
 Place: Vicenza, Italy  
 Field: Tannery Machinery  
 Agenda: Visits to GE.MA.TA
- (j) **Study tour of Messrs B. Fenklew/A. Negash, Awash Tannery**  
 Period: 20-30 June 1990  
 Place: Arzignano, Italy  
 Field: Tannery Machinery  
 Agenda: Visit to Pajusco Technologie
- (k) **Study tour of Messrs R. Abubeker/Y. Tamiru, Awash Tannery**  
 Period: 14-21 July 1990  
 Place: San Romano, Italy  
 Field: Tannery Machinery  
 Agenda: Visit to Italprogetti
- (l) **Study tour of Messrs. J. Hassen/T. Girmaye, Awash Tannery**  
 Period: 15-21 July 1990  
 Place: Chiesina Uzzanese, Italy  
 Field: Tannery Machinery  
 Agenda: Visit to Flamar, Gozzini
- (m) **Study tour of Mr. Seyoum Hailu, National Expert**  
 Period: 15-19 September 1990  
 Place: Paris  
 Agenda: "Semaine du Cuir"
- (n) **Tannery Machinery Maintenance Seminar**  
 Period: 8-12 October 1990  
 Place: Awash Tannery, Addis Ababa, Ethiopia  
 Number of Nationals: 20 participants
- (o) **Hides and Skins Improvement Seminar**  
 Period: 19-23 November 1990  
 Place: Leather Institute of Zimbabwe (LIZ), Bulawayo, Zimbabwe  
 Number of Nationals: 4 participants

- (p) **Tanning and Leather Finishing Seminar**  
 Period: 8-19 April 1991  
 Place: Kenya Industrial Research and Development Institute (KIRDI),  
 Nairobi, Kenya  
 Number of Nationals: 8 participants
- (q) **Study tour of Messrs. Z. Kebede/G. Argaw, ARMD/MOA**  
 Period: 20 April - 11 May 1991  
 Place: Germany, Switzerland, India  
 Agenda: To observe/study hides and skins improvement
- (r) **Study tour of Messrs, G. Mamo/A. Asfaw/F. Abate/T. Jena and  
 Y. Kifle, ARMD/MOA**  
 Period: 21 - 31 May 1991  
 Place: Kenya, Zambia and Zimbabwe  
 Agenda: To observe hides and skins improvement programmes
- (s) **Study tour of Messrs. S. Hailu/Z. Kebede**  
 Period: 29 July - 4 August 1991  
 Place: Bulawayo, Zimbabwe  
 Agenda: ECDC/FAO/UNIDO Seminar on hides and skins trade
- (t) **Study tour of Messrs. A. Erqou/A. Andarghe, NLSC**  
 Period: 24-30 November 1991  
 Place: Arzignano and S. Croce, Italy  
 Agenda: Seminar for tannery engineers and technicians
- (u) **Study tour of Messrs. A. Cherinet/A. Belete, Universal Leather Goods Factory**  
 Period: 15 March - 8 April 1992  
 Place: Morogoro, Tanzania  
 Agenda: Course on manufacturing of leather articles
- (v) **Study tour of Mr. Zewdu Kebede, ARMD/MOA**  
 Period: 20-26 April 1992  
 Place: Rome, Italy  
 Agenda: To attend the Third Session of the Sub-Group on Hides and Skins  
 Meeting.
- (w) **Tannery Waste Effluent Treatment Seminar**  
 Period: 7-13 June 1992  
 Place: Nairobi, Kenya  
 Number of Nationals: 4 participants

The above participants have duly submitted their terminal reports.

##### 5. International experts

The training was further complemented by the international experts fielded from the regional project to Ethiopia. These were:

- (a) **Hides and skins improvement expert - Mr. T.J. Devassy**

This expert was an FAO input who was assigned and worked closely with the ARMD/MOA. The fielding took place in three missions, i.e. from 15 January to 14 July

1990, from 1 September to 14 December 1990, and from 30 January to 29 May 1991, making a total of 13.5 man-months. The expert organized the project orientation seminar for 40 extension officers, arranged a refresher course for 60 hides and skins workers on ripping, flaying, curing methods and trade practices, etc. in different localities, supervised the activities of hides and skins improvement in the target area, identified sites for constructing the two curing sheds, assisted in improving the quantity and quality of hides and skins to meet the internal and external markets' demand. He prepared forms for the monthly field reports, held two ten-day training workshops on grading, marking and the reporting system which were attended by 52 field officers, and introduced markings of grades on raw hides and skins throughout the target area by using marking hammers. An agreement was reached by the expert with the NLSC to purchase raw hides and skins based on technical grading and to pay special incentive prices in the target area. The expert prepared two mission reports which were submitted to the ARMD/MOA for action and proper follow-up.

**(b) Tannery Machinery Maintenance Expert - Mr. A. T. Rongved**

The expert carried out two missions in Ethiopia, i.e. from 2 to 30 September 1989 and from 1 May to 3 June 1990. He visited the six tanneries located in and around Addis Ababa and gave them intensive assistance in some of the operational and technical problems they had with their machinery. However, the time was very short and he encountered difficulties with shortage of spare parts. During the expert's second mission, the factories were faced with severe fuel shortage so his movement from tannery to tannery was very much restricted. Despite these problems, the expert held the re-blading course at Awash and Ethiopia tanneries, provided a reproduction of the reblading course instruction material for future reference, and gave a detailed report on how the tanneries could handle their maintenance problems.

**(c) Footwear Experts - Messrs. Jean-Louis Baradat and Stefan Linz**

The first expert to be fielded was Mr. Baradat. He carried out missions from 1 November to 2 December 1989 and from 5 January to 1 February 1990. As Mr. Baradat's expertise was found to be unsuitable for the requirements of the counterpart companies Mr. Linz was fielded from 16 August to 20 October 1990 and from 12 February to 8 March 1991.

Mr. Linz supervised the rehabilitation and the proper installations of the shoe machinery delivered by the project to Anbessa Shoe Factory. During the first fielding he became familiarized with the production people and the new machines. When these

machines started operation he was able to demonstrate them and train the operators on the spot, with the assistance of the supplier's technicians.

Among his activities the expert also supervised the production of approximately 2,200 pairs in one (eight-hour) shift, which is 88 per cent of the total capacity; improved the quality of the shoes; systematized the production process; introduced a new system of transporting shoe components on the production floor; and restored the proper work of the quality control department.

**(d) Leather Goods Expert - Mr. David Tracy**

The expert was fielded from 4 January to 4 June 1990 and worked with the Universal Leather Goods Factory and the Productivity Improvement Centre.

Mr. Tracy prepared a syllabus and training programme for the sewing course being given at the Productivity Improvement Centre and trained instructors in implementing the new course during one day per week for approximately two months.

At Universal factory the expert trained the two pattern cutters in pattern-cutting pre-production trials, leather selection and production process. With the assistance of the two cutters, the expert also gave training in hand-cutting in a newly established cutting section and in the small leather goods and handbag sections. This operation was found to be economically very sound and this hand-cutting section is still operating successfully.

Besides the establishment of the hand-cutting section, where he managed to bring the accuracy and waste to an acceptable standard, Mr. Tracy also dealt with the problems of inefficiency and low product quality in the small leather goods, the production problems in the handbag section, the difficulties in communication and distribution of responsibilities, and the shortage of technical know-how and skilled operators.

**(e) Leather Finishing Expert - Mr. Herman A. Eckert**

The fielding of the expert took place from 13 January to 13 April 1990 and from 19 February to 15 March 1991.

During his missions the expert worked closely with Awash, Addis and Ethiopia tanneries where he made numerous finishing trials for shoe upper leather, garment leather, shoe lining leather, garment leather, upholstery leather from hides, sheep- and goatskins. All trials were made in consultation with the technologists of the tanneries. He gave two finishing seminars for 35 participants in Awash and Ethiopia tanneries as well as a one-day Managing Technical Seminar for 65 participants at the Ghion Hotel.

He also held discussions with the general manager and export manager of the NLSC as to how best to achieve an increase in the export volume and foreign exchange earnings. Many recommendations were given by the expert on production flexibility,

achieving optimum technical production results, execution of the finishing trials, tanning machines, operations and maintenance. He indicated the export chances for Ethiopian hides and skins or finished articles, the possible sales reorganization as well as the purchasing policy for chemicals and dyestuffs.

(e) **Other experts**

- *Marketing Expert - Mr. David Manly*

This expert was an input from the International Trade Centre (ITC) who carried out a market survey in Ethiopia from 1 to 12 May 1990. Mr. Manly held discussions with government officials and institutions responsible for the development of the leather sector.

- *Expert in Women Promotion - Ms. Hope B. Chigudu*

Ms. Chigudu was in Ethiopia from 17 to 24 November 1991 and visited Awash Tannery, Anbessa Shoe Factory, Universal Leather Goods Factory and the NLSC to review the status and working conditions of the women in the leather industry.

- *Tannery Expert - Mr. Carlos Marzo*

During the period 22 to 30 June 1992 the expert assisted Dire Tannery. He also visited Wallia and Vale tanneries to assess their situation and possible assistance needs.

- *Export Promotion and Joint Venture Meeting -*

*Messrs. O. Kloetzer, P. Sinturel and R. Mezeray*

In connection with output 7 of the national project, Messrs. Kloetzer (senior management consultant), Sinturel (leather goods consultant), and Mezeray (footwear consultant) visited Ethiopia to select eligible participants for the Pirmasens Fair, Germany, between 2 and 6 November 1992, and to assist them in preparing their exhibits. The leather goods and footwear consultants closely worked with the participants to select and make the samples of leather goods, shoe uppers and shoes to be exhibited at the fair.

- *Computer Expert - Mr. Bela Barothy*

The expert was in Ethiopia from 24 November to 7 December 1991 when he installed at Awash Tannery a computerized maintenance system, including planning and controlling inspections and repairs, as well as spare parts stock control. A user-friendly manual for operating the program package was also prepared by the expert.

- *Visitors from Vienna and Regional Headquarters*

The BSOs from UNIDO headquarters visited the project on a number of occasions. Other visitors include the CTA Mr. G. Felsner and Messrs. M. Beci, J. Muriuki and S. Kiruthu from Nairobi headquarters, as well as Messrs. A. Ingram, A. Lesuisse, and F. Schmel from Vienna headquarters.

#### **D. Development Objective**

*This is to contribute to the improvement of the country's and the region's economy, create new employment opportunities, improve export performance, increase the income of the primary producers, and provide the international leather and leather products market with additional semi-processed raw materials and finished products.*

The project in general has revitalized the activities of the raw hides and skins improvement. The concept of increasing the income of the primary producers through incentives based on improved quality performance or gradings motivates and enhances the production of better quality raw hides and skins, initially in the target areas. This and the rehabilitation of the tanneries play an important role in further improving the export performance of the country by earning more foreign exchange and providing the international leather and leather products market with improved quality of additional semi-processed raw materials and finished products.

### **CONCLUSIONS**

1. The positive outcome of the project, both in the revitalization of the raw hides and skins improvement activities and the rehabilitation programmes carried out in the tanneries and the shoe factory, produced considerable good will in the country towards UNIDO.
2. The training, in terms of study tours, seminars, on-the-job-training by the international experts, the exchange of experiences in the region, etc., was very important for enhancing the production of better quality hides and skins, leather and leather products.
3. In the light of the dissolution of the NLSC, which played a central role in the improvement and development of the leather subsector, UNIDO should assist in forming a leather and leather products industry association to be able to properly execute the activities in Phase II.
4. The hides and skins improvement programme is a long-term activity which needs constant attention and follow-up. The idea of making this programme self-financing, nationally, through the creation of the "revolving fund" is a novel concept and should be encouraged. In the light of the new economic policy of moving from a centrally-planned economy to a free or open-market economy, all beneficiaries, i.e. tanneries, footwear or leather goods factories, whether state or privately owned, must be obligated to pay back in local currency, over a period of time, the cost of the machinery they have received to a "revolving fund". This fund would be ultimately used for the improvement of raw hides and skins.
5. The project was implemented during a time when the country faced a severe shortage of foreign currency to finance the purchase of machinery and equipment required for the rehabilitation and upgrading factories. The total of over US\$ 1.3 million, according to the value

of purchase orders issued under US/ETH/88/100 and US/RAF/88/102, relieved the factories of the burden of raising the amount in foreign currency.

6. The project experienced no delays either in the purchase or delivery of the machinery or in clearing them from the port. The beneficiaries took immediate actions to install and put the machinery into operation, and paid for the costs incurred for clearing, installation and operating the machinery.

7. There were many lessons learned from the project and the programme. The programme approach strengthened the interaction and cooperation between the different subsectors, institutes, ministries and UN agencies involved both on the country and regional level. The creation of sectoral associations and assistance in replacing old structures was one of the important achievements of the project. The private industry involvement in the activities and in the planning of the country's industrial development have also been started.

8. The in-depth evaluation and the TPR meeting of the project noted the overall success of the project, although there are some problems faced particularly in the raw hides and skins improvement. Both endorsed their strong support for the continuation of the project in a second phase.

9. Cooperation between the participating countries was advanced in the course of the project. Ethiopia extended assistance in on-the-job training to two Kenyans while two Ethiopians went to Morogoro, Tanzania, to attend a leather goods training course. Visits of Ethiopian hides and skins improvement officers were made to Kenya, Zambia and Zimbabwe.

10. Various meetings attended by the national experts and the different seminars given to the African tannery technicians and technologists, as well as the exchange of views and experiences and establishing contacts between participating countries, played a significant part in the development of the leather industry in the region.

11. The policy guidelines and industrial strategy to be implemented/considered both regionally and country-wise by the participating countries' governments, is one of the major outcomes of the programme. The policy guidelines and strategy suggested to be adopted by the governments in the region are sector-specific and very particular in order to assist the development of the industry. These policies and strategies, if adopted and implemented, in the region are believed to surface the sector's industrial and financial potential.

SUMERS OF DEPARTMENT OF AGRICULTURE OF  
ADMINISTRTRIVE REGION

MONTH MARCH YEAR 1992/1984

REPORTR'S NAME GOA MAMO

DEPARTMENT OF AGRICULTURE FOUR ADMINISTRSTIVE REGION MONTHLY  
COLLECTED HIDES GRADES AND ITS PRECENTAGE

NO	NAME OF DEPARTMENT	CATEGORY	TOTAL	FROM TRADERS										TOTAL
				Gr.1		Gr.2		Gr.2		Gr.4		Rejects		
				PCS	%	PCS	%	PCS	%	PCS	%	PCS	%	
SIWAMO	Hides- air dried	2323	1055	46	552	24	378	16	299	13	29	1	652	
	Skins- SALted	0	0	0	0	0	0	0	0	0	0	0	343	
	Sheep- air dried	1602	883	55	396	25	278	17	45	3	0	0		
	Skins- Salted	14887	8038	54	5170	35	1345	9	315	2	19			
	Goat air dried	2811	1608	57	861	31	265	9	77	3	0	0		
	Skins-Salted	1330	553	42	649	49	124	9	4					
BOREMO	Hides- air dried													
	Skin- Salted		NOT YET REPORTED											
	Sheep - air dried													
	Skin - Salted													
	GOAT- air dried													
	Skin Salted													
NORTH DMO	Hides - air dried	684	332	49	207	30	188	17	25	4	2	0		
	Skins - Salted	0	0	0	0	0	0	0	0	0	0	0	0	
	Sheep - air dried	6148	3632	59	1321	21	1068	17	105	2	22	1		
	Skins - Salted	5234	4288	82	717	14	173	3	56	1	0	0		
	Goat - air dried	6249	2988	48	1642	26	1413	23	186	3	20			
	Skin - Salted													

*EM*



NUMBERS OF DEPARTMENT OF AGRICULTURE OF  
ADMINISTRATIVE REGION

MONTH MARCH YEAR 1992/1994

REPORTER'S NAME GOA MAMO

DEPARTMENT OF AGRICULTURE FOUR ADMINISTRATIVE REGION MONTHLY  
COLLECTED HIDES GRADES AND ITS PERCENTAGE

NO	NAME OF DEPARTMENT	CATEGORY	TOTAL	FROM TRADERS										
				Gr.1		Gr.2		Gr.2		Gr.4		Rejects		TOTAL
				PCS	%	PCS	%	PCS	%	PCS	%	PCS	%	
	SOUTH OMO	Hides- air dried												
		Skins- Salted		NOT YET REPORTED										
		Sheep- air dried												
		Skins- Salted												
		Goat air dried												
		Skins-Salted												
	ZONAL	Hides- air dried	3007	1397	46	759	25	496	17	324	11	31	1	652
		Skin- Salted												
		Sheep - air dried	7750	4515	58	1717	22	1346	18	150	2	22		
		Skin - Salted	20121	12326	61	5887	29	1518	8	371	2	19		
		GOAT- air dried	9060	4596	51	2503	28	1678	18	262	3	20		
		Skins Salted	1330	553	42	649	49	124	9	4				
		Hides - air dried												
		Skins - Salted												
		Sheep - air dried												
		Skins - Salted												
		Goat - air dried												
		Skin - Salted												

FROM SLAUGHTER HOUSE										FROM SERVICE CO-OPERATIVES											
Gr.1		Gr.2		Gr.3		Gr.4		Rejects		TOTAL	Gr.1		Gr.2		Gr.3		Gr.4		Rejects		
PCs	%	PCS	%	PCS	%	PCS	%	PCS	%		PCS	%	PCS	%	PCS	%	PCS	%	PCS	%	
459	70	152	23	30	5	11	2														
222	65	86	25	21	6	14	4														

*Handwritten signature*  
 10-1-55  
 10-1-55

Number of Department of  
Agriculture of four Administrative  
region

Department of Agriculture for four Administrative region main defect  
Defects Analysis down grading the quality of hides and skins as per stage of  
total collection

Month MARCH Year 1992/1984

Report Name GOA MAMO

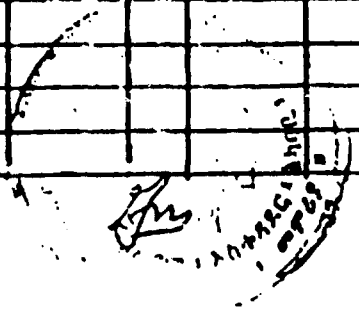
NO	Name of Department Agricul.	Category	FROM TRADERS										
			Total Colle.	future Faction	Braan ing	poor fatter	red heat	Socked	Diseas	fly cuts	other	Total Coll.	Future Faction
SIDAMO	Hides		2323	5	5	2	0	0	1	4	7	953	0
	Sheep skins		16489	3	3	1	0	0	2	8	10		
	Goat skins		4141	5	1	5	2	0	6	6	6		
BORENA	Hides		NOT YET REPORTED										
	Sheep skins		NOT YET REPORTED										
	Goat skins		NOT YET REPORTED										
NORTH OMO	Hides		604	5	11	2	0	0	4	18	21		
	Sheep skins		1382	4	0	10	1	0	3	10	19		
	Goat skins		6249	5	0	9	0	1	5	13	30		
SOUTH OMO	Hides		NOT YET REPORTED										
	Sheep skins		NOT YET REPORTED										
	Goat skins		NOT YET REPORTED										
ZONAL	Hides		3007	5	6	2	0	0	2	7	10	953	0
	Sheep skins		2787	2	2	5	0	0	2	9	14		
	Goat skins		10390	5	0	7	1	1	5	10	20		

SERVICE Co-Operatives

Bread ing	Poor fatte	Red heat	Socket	Diseas	Fly cuts	other	Total Coll.	Putre factio	Brand ing	Poor patter	Red heat	Socket	Diseas	Fly cuts	other
3	1	0	0	2	5	2									
NOT YET REPORTED															
NOT YET REPORTED															
3	1	0	0	2	5	2									

*[Handwritten signature]*

FROM SLAUGHTER HOUSE										FROM SERVICE CO-OPERATIVES											
Gr.1		Gr.2		Gr.3		Gr.4		Rejects		TOTAL	Gr.1		Gr.2		Gr.3		Gr.4		Rejects		
PCS	%	PCS	%	PCS	%	PCS	%	PCS	%		PCS	%	PCS	%	PCS	%	PCS	%	PCS	%	
459	70	152	23	30	5	11	2														
222	65	36	25	21	6	14	4														
<i>NOT YET REPORTED</i>																					



Project Number  
US/ETH/88/100

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION  
NON-EXPENDABLE PROPERTY CONTROL RECORD

Page No. : 1  
Period Ending : DECEMBER-91

Country : ETHIOPIA

Project Title : NATIONAL HIDES AND SKINS, LEATHER AND LEATHER PRODUCTS IMPROVEMENT SCHEME - EAST AFRICA (ALSO REF. US/RAF/88/100)

Purchase Order Number	Item No.	Description	Qty. Ord.	US Dollar Equivalent	Received			Cond.	Qty On Hand	Remarks
					Qty.	M	Y			
15-0-01007	1	ASHFORD 286-12 CPU, 1.44MB FDD VGA CARD, 20MB HD, 1MB RAM, MONITOR KEYBOARD 101, MS DOS VER. 3.3 COMPLETE WITH ACCESSORIES.	1	3,541.00	1	12	91	G	1	Reported missing parts replaced from Hungary
15-1-01099	1	JOB386SX-16 SLIM, S/N 33727: 10M COMPATIBLE PC, 40 MB HARD DISK, US ASCII KEYBOARD S/N 1030507, MS DOS 4.01 5.25", SAMTRON COLOR MONITOR, 14" S/N33736.	1	2,602.00	1	12	91	G	1	
15-1-01099	2	EPSON LQ-850+, S/N 008702581, SINGLE SHEET FEEDER.	1	985.00	1	12	91	G	1	
15-9-00873	1	NATIONAL MODEL NV-M7EN VHS PORTABLE VIDEO MOVIE CAMERA WITH AUTO-FOCUS, COMPLETE WITH CHARGER AND BATTERY, PAL SYSTEM.	1	1,130.00	1	09	89	G	1	
15-9-00873	2	NATIONAL MODEL NV-JIEN VHS COLOR VIDEO CASSETTE RECORDER WITH WIRELESS REMOTE CONTROL, PAL SYSTEM.	1	436.00	1	09	89	G	1	
15-9-00873	3	SONY MODEL KV-2183GE 21" COLOR TV WITH WIRELESS REMOTE CONTROL, PAL SYSTEM.	1	506.00	1	09	89	G	1	
15-9-00874	1	BRUNN MULTIMAG 2015AFC 35MM SLIDE PROJECTOR W/85MM F2.8 LENS, NO. 27749431.	1	298.00	1	09	89	G	1	
15-9-00874	2	ELMO HP-A270 OVERHEAD PROJECTOR NO. 203408 COMPLETE WITH 3M WRITING ROLL 11" NO. 78 6061 1751 1.	1	493.00	1	09	89	G	1	
15-9-00891	1	HONDA MOTORCYCLE MODEL : XL185SD DK.	10	18,128.00	10	06	90	G	10	

ANNEX II

Country : ETHIOPIA

Purchase Order Number	Item No.	Description	Qty. Ord.	US Dollar Equivalent	Received			Cond.	Qty On Hand	Remarks
					Qty.	M	Y			
15-9-00892	1	TOYOTA 4WD LANDCRUISER HARDTOP DIESEL MODEL BJ70LV-KR. CHASSIS NUMBER ==> BJ70-0011469 ENGINE NUMBER ==> 3B-1082591 REGISTRATION NO. => UN 0602	1	12,193.00	1	12	89	G	1	
15-9-00892	2	TOYOTA HILUX 4X4 PICKUP DIESEL DOUBLE CAB MODEL LN106L-PRMRS. CHASSIS NUMBER ==> LN106-0020043 ENGINE NUMBER ==> 3L-2016391 REGISTRATION NO. => 4-22391	1	11,650.00	1	05	90	G	1	
15-9-00892	3	TOYOTA HILUX 4X4 PICKUP DIESEL DOUBLE CAB MODEL LN107L-PRMRS. CHASSIS NUMBER ==> LN106-0020095 ENGINE NUMBER ==> 3L-2013889 REGISTRATION NO. => 4-22224	1	11,650.00	1	05	90	G	1	
15-9-01146	1	RANK XEROX PHOTOCOPYING MACHINE, MODEL 5014 R/E S/N 2117858955.	1	3,062.00	1	01	90	G	1	
15-9-01215	1	PFAFF 244-944/01 BL X 1,2 TWO-NEEDLE, LOCKSTITCH, FLATBED SEWING MACHINE WITH DROP FEED AND ROLLER PRESSER COMPLETE WITH STAND, TREADLE AND MOTOR WITH SEWING LIGHT.	4	14,925.00	4	03	90	G	4	

Country : ETHIOPIA

Purchase Order Number	Item No.	Description	Qty. Ord.	US Dollar Equivalent	Received			Cond.	Qty On Hand	Remarks
					Qty.	M	Y			
15-9-01215	2	PF AFF 491-755/13-725/04-940/02 BL X 1,2 SINGLE-NEEDLE, LOCKSTITCH, POSTED HIGH-SPEED SEWING MACHINE WITH NEEDLE FEED, WHEEL FEED AND ROLLER PRESSER, COMPLETE WITH STAND, TREADLE, MOTOR AND SEWING LIGHT.	1	6,401.00	1	03	90	G	1	
15-9-01412	1	POLETTO HYDRAULIC LIME SPLITTING MACHINE MODEL D/3000, COMPLETE.	1	115,504.00	1	07	90	G	1	
15-9-01412	2	POLETTO HYDRAULIC FLESHING MACHINE MODEL S/2700, COMPLETE.	1	82,171.00	1	07	90	G	1	
15-9-01413	1	MERCIER CYLINDER 112 A" FLESHING MACHINES IN 1500MM WORKING WIDTH, COMPLETE.	2	82,169.00	1	05	90	G	1	1 SHORT-SHIPPED.
15-9-01620	1	TORIELLI HYDRAULIC AUTOMATIC WAIST HEEL SLAT LASTING MACHINE, ONE ONLY OPERATION,HEEL BY TACKS WAIST BY THERMOCEMENT WITH 2 PINCERS 380/50 TRF 090448.	1	41,020.00	1	07	90	G	1	
15-9-01626	2	HYDRAULIC CLICKING PRESS WORKING AREA MM 900X430 BEAM MM370 WITH AUTOMATIC MICRO-RUN STOP, 20 TONS 380/50 A 90449, A 90450/54.	6	24,861.00	6	07	90	G	6	
15-9-01626	3	COUNTER MOULDING MACHINE WITH COOLED MOULDS, 2 REACTIVATING STATIONS WITH PINCERS, HEEL MARGING FLANGER 380/50 M 90455.	1	14,343.00	1	07	90	G	1	
15-9-01626	4	TWO STATION PNEUMATIC TOE-PUFF ATTACHING MACHINE WITH TOE BLOCKING DEVICE 380/50 B 90456.	1	2,243.00	1	07	90	G	1	



Project Number : US/ETH/88/100

Page No : 4

Country : ETHIOPIA

Purchase Order Number	Item No.	Description	Qty. Ord.	US Dollar Equivalent	Received			Cond.	Qty On Hand	Remarks
					Qty.	M	Y			
15-9-01626	5	TOE CAPS MOISTENING MACHINE BY HOT SYSTEM WITH INDIVIDUAL STEAM GENERATOR 380/50 D 90457.	1	1,105.00	1	07	90	G	1	
15-9-01626	6	AUTOMATIC CONVEYORS, STRAIGHT LINE, COMPLETE.	2	45,526.00	2	07	90	G	2	

Project Number  
US/ETH/88/100

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION  
NON-EXPENDABLE PROPERTY CONTROL RECORD

Page No. : 5

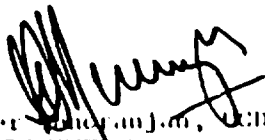
Period Ending : DECEMBER-91

Country : ETHIOPIA

Project Title : NATIONAL HIDES AND SKINS, LEATHER AND LEATHER PRODUCTS IMPROVEMENT SCHEME - EAST AFRICA (ALSO  
REF. US/RAF/88/100)

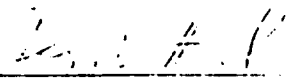
We certify that the quantities of non-expendable equipment received, less the quantities of non-expendable equipment  
written-off, reflect the physical count of the items on hand.

United project manager  
or  
Resident representative

  
Peter Amoranjira, UNDP  
signature

Date 16.1.92

FOR Government counterpart

  
signature  
SEYOUM PALLU  
NATIONAL EXPERT

Date

Project Number  
US/RAF/88/102

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION  
NON-EXPENDABLE PROPERTY CONTROL RECORD

Page No. : 1  
Period Ending : DECEMBER-91

Country : ETHIOPIA

Project Title : REGIONAL TANNERY REHABILITATION SCHEME (REF. US/RAF/88/100)

Purchase Order Number	Item No.	Description	Qty. Ord.	US Dollar Equivalent	Received			Cond.	Qty On Hand	Remarks
					Qty.	M	Y			
15-0-00294	1	ROTASTAK 1500 - ROTARY STAKING MACHINE WORKING WIDTH 1500 MM WITH HYDRAULIC MOVEMENT & ACCESSORIES.	4	104,816.00	4	11	90	G	4	
15-0-00295	1	CHAIN CONVEYOR DRYERS FOR LEATHER, 250 M. LENGTH.	2	132,500.00	2	10	90	G	2	
15-1-00305	1	USM CEMENT SOLE ATTACHING MACHINE MODEL 800: BANF-22020095.	2	1,431.00						→ SPARE PARTS NOT MACHINE
15-1-00421	1	MERCIER FRERES H2A FLESHING MACHINE IN 1500MM WORKING WIDTH.	1	39,508.00	1	12	91	G	1	
15-9-01789	1	TORIELLI SKIVING MACHINE FOR SYNTHETIC COUNTERS/TOE PUFF, WITH BUILT-IN CLUTCH, MOTOR AND TABLE, MACHINE MODEL 1071/C78N.	2	5,065.00	2	11	90	G	2	
15-9-01789	2	EMERYBAND BOTTOM SHOE ROUGHING MACHINE WITH ADJUSTABLE GUIDES, MACHINE MODEL 1059/K71.	2	9,806.00	2	11	90	G	2	
15-9-01789	3	NEBULIZED WATER DUST COLLECTOR ON WHEELS, MACHINE MODEL 194/151.	2	2,089.00	2	11	90	G	2	
15-9-01789	4	MOIST AIR WRINKLE CHASING MACHINE WITH IRONING ROLLERS AND THERMOSTATIC DIGITAL CONTROL, MACHINE MODEL 756.	1	1,665.00	1	11	90	G	1	
15-9-01789	5	HYDRAULIC AUTOMATIC 2 STATION SOLE ATTACHING PRESS, SELF-ADJUSTING PADS, ALSO LOUIS XV, WITH MOTOR AND TIME CONTROL.	2	15,323.00	2	11	90	G	2	
15-9-01915	1	DRY SHAVING MACHINES TYPE: RMA/1105, WORKING WIDTH 1100 MM.	2	31,633.00	2	11	90	G	2	

Project Number : US/RAF/88/102

Page No. : 2

Country : ETHIOPIA

Purchase Order Number	Item No.	Description	Qty. Ord.	US Dollar Equivalent	Received			Cond.	Qty On Hand	Remarks
					Qty.	M	Y			
15-9-01936	1	SOAKING/LIMING DRUMS DIAMETER 3,5 X 3,5 M, COMPLETE.	2	293,710.00	2	10	90	G	2	
15-9-01936	2	RETANNING DRUMS DIAMETER 2,5 X 2,0 M, COMPLETE.	6	0.00	6	10	90	G	6	PRICE INCLUDED IN ITEM 1
15-9-01936	3	TANNING DRUMS DIAMETER 3,0 X 3,0 M, COMPLETE.	1	0.00	1	10	90	G	1	PRICE INCLUDED IN ITEM 1

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Project Number  
US/RAF/88/102

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION  
NON-EXPENDABLE PROPERTY CONTROL RECORD

Page No. : 3  
Period Ending : DECEMBER-91

Country : ETHIOPIA

Project Title : REGIONAL TANNERY REHABILITATION SCHEME (REF. US/RAF/88/100)

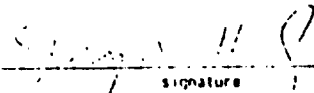
We certify that the quantities of non-expendable equipment received, less the quantities of non-expendable equipment written-off, reflect the physical count of the items on hand.

Unido project manager  
or  
Resident representative

  
Peter Amundson, UNIDO  
signature

Date 16.1.92

FOR Government counterpart

  
signature  
SEYOUN HAILU  
NATIONAL EXPERT

Date

Fig. 1. Collection of Hides and Skins, 1990 & 1991

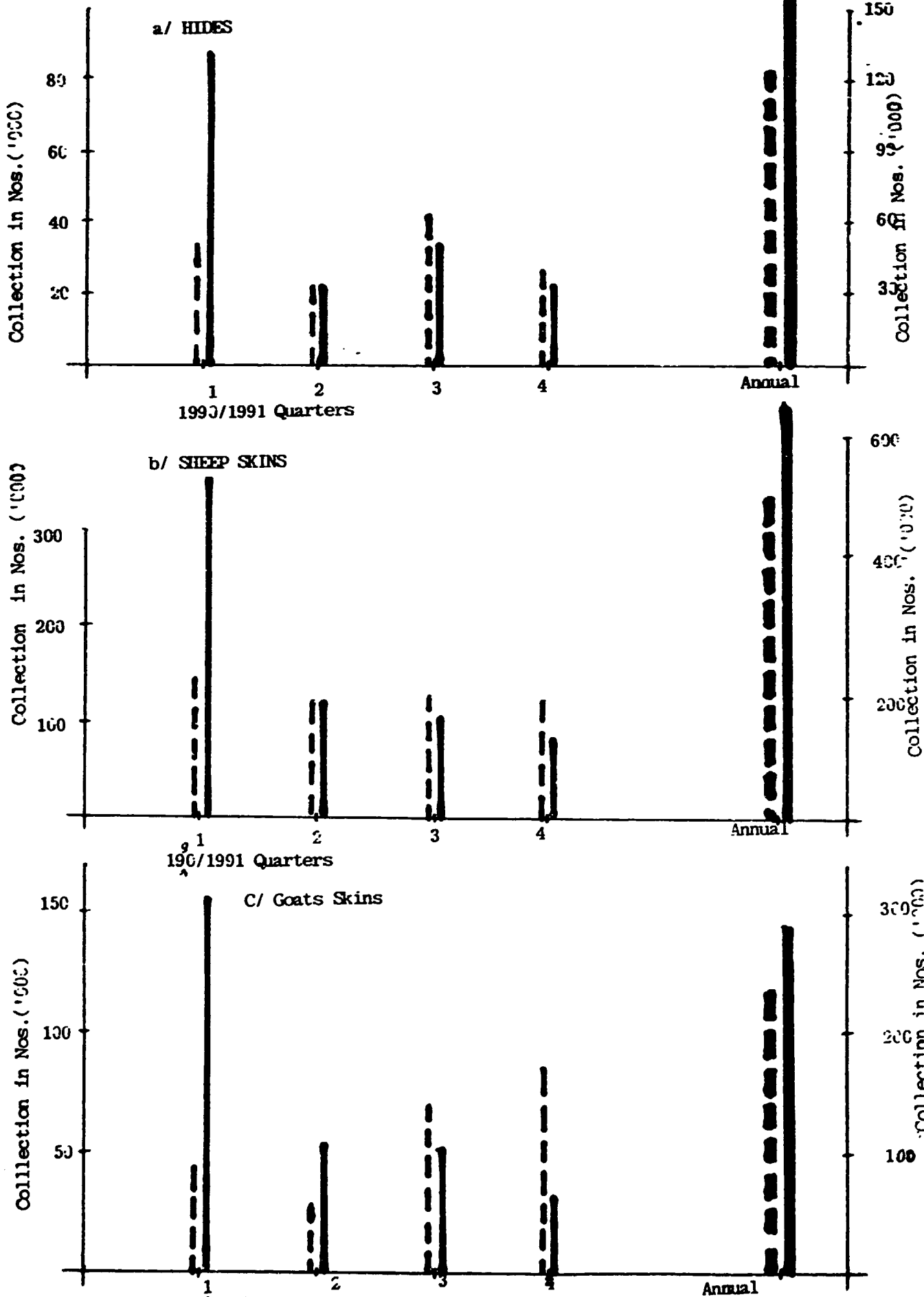


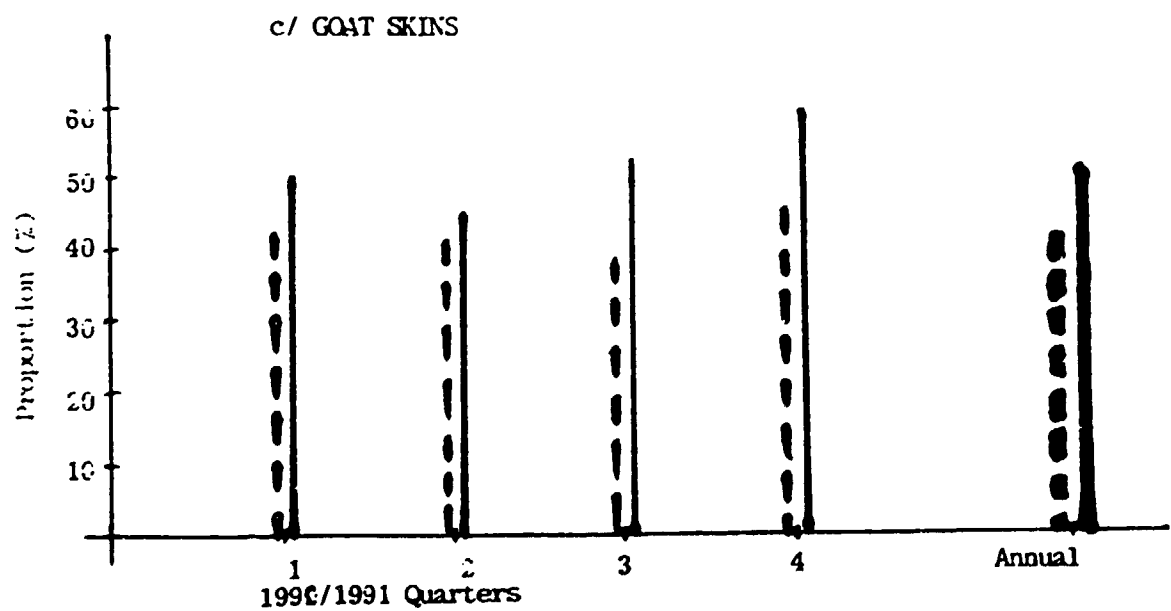
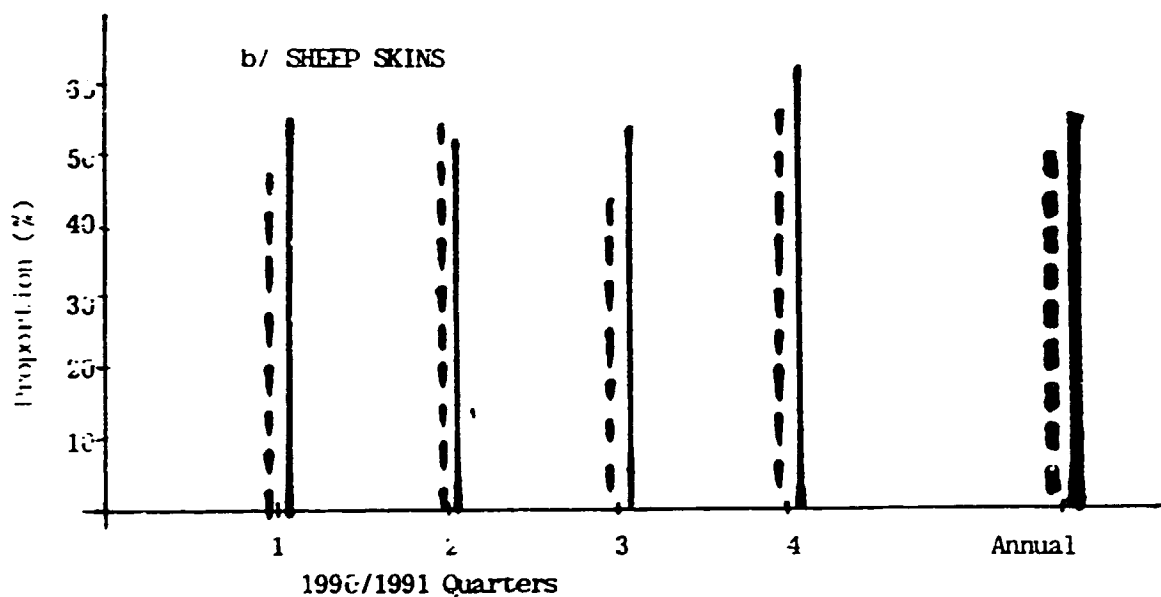
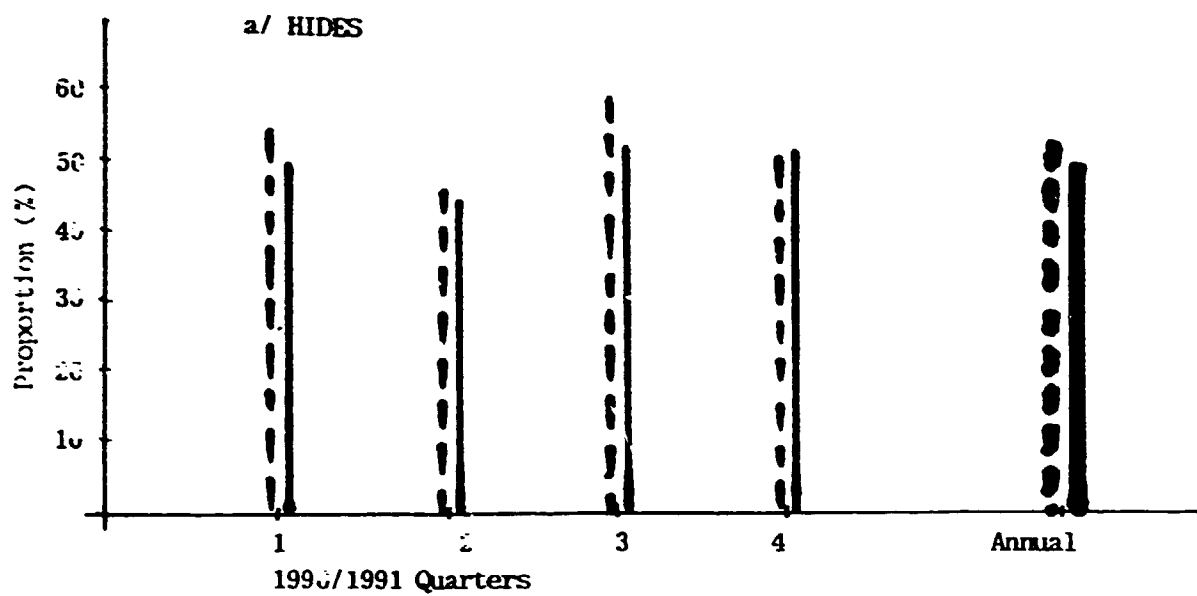
Fig. 2. Hides and Skins Quality Grades, 1990 & 1991Grade 1

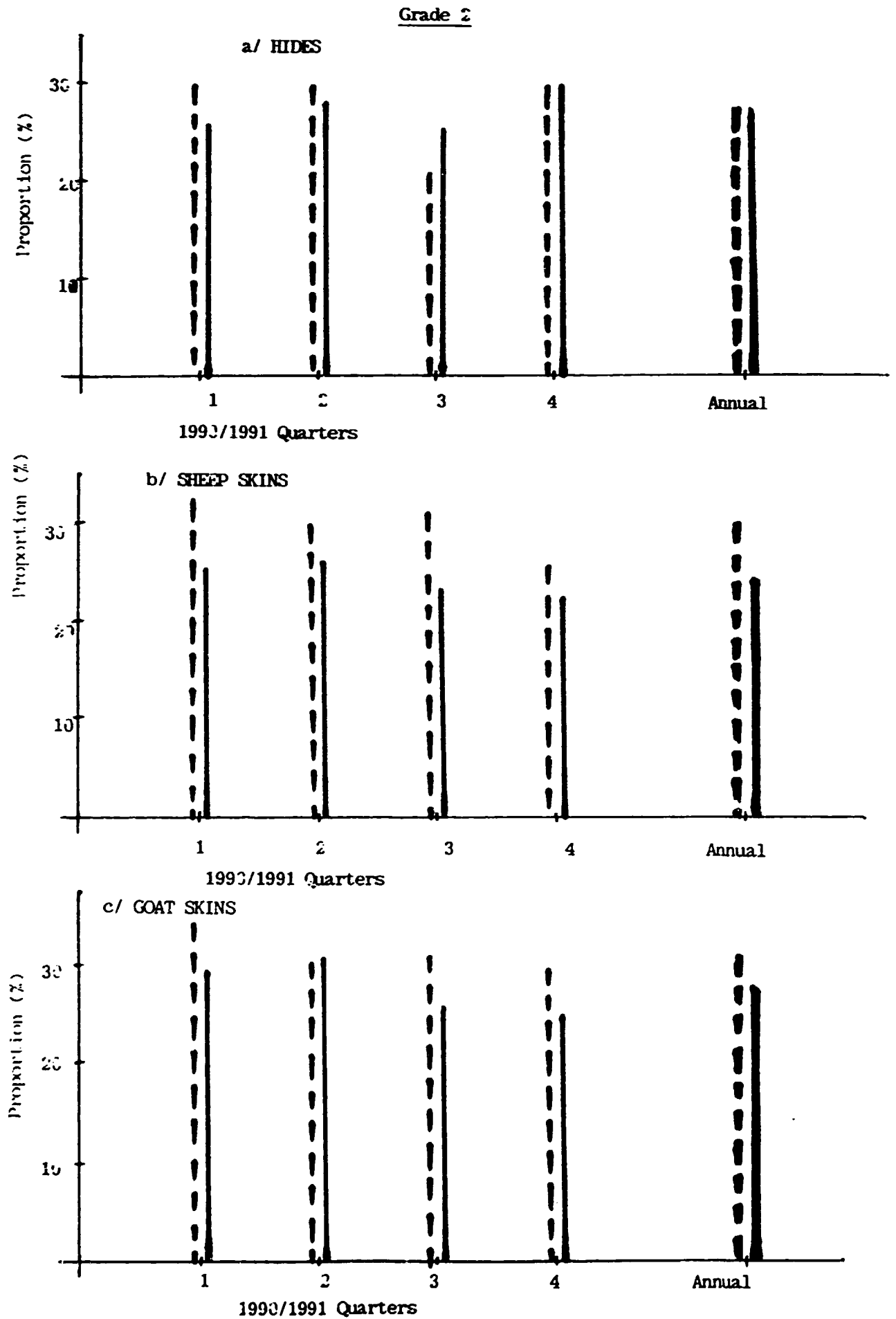
Fig. 3. Hides and Skins Quality Grades, 1993 & 1991



Fig. 4. Hides and Skins Quality Grades, 1990/1991

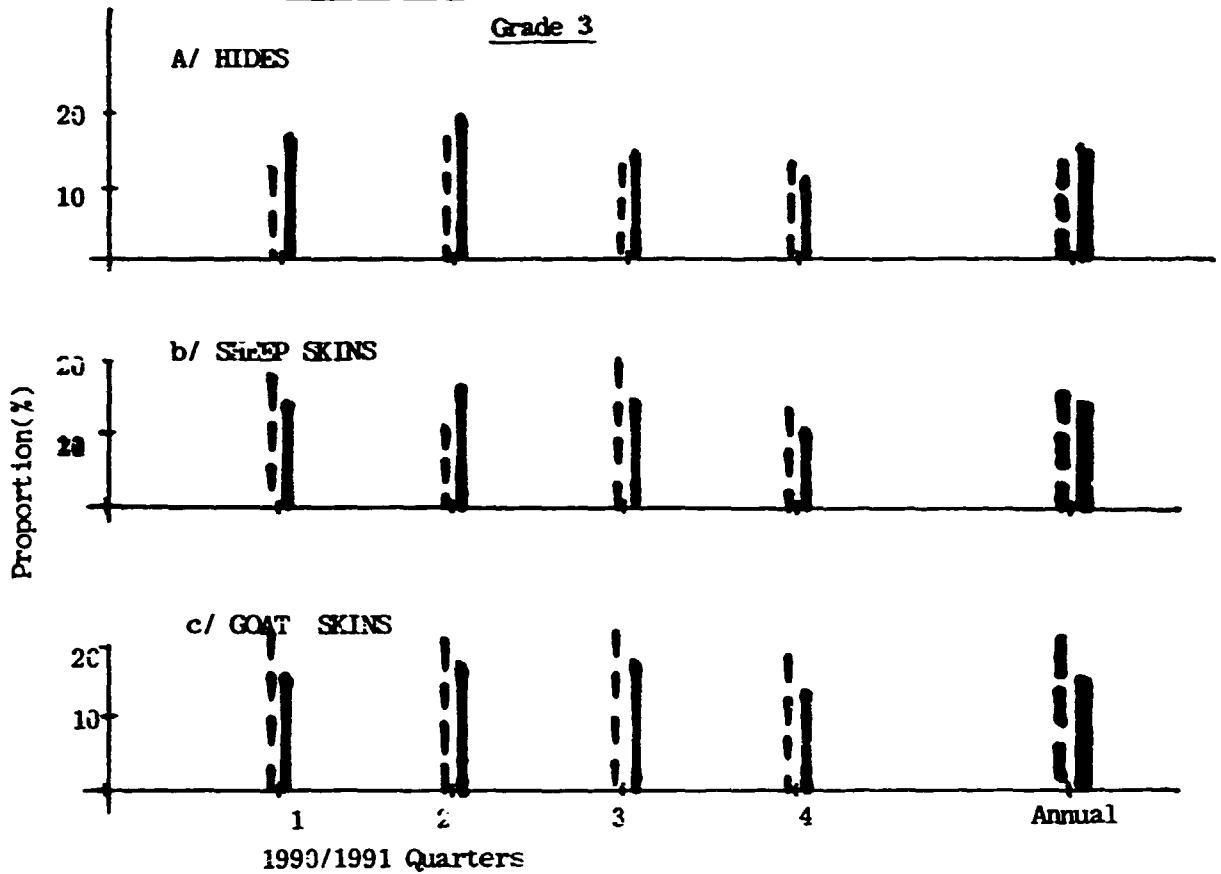
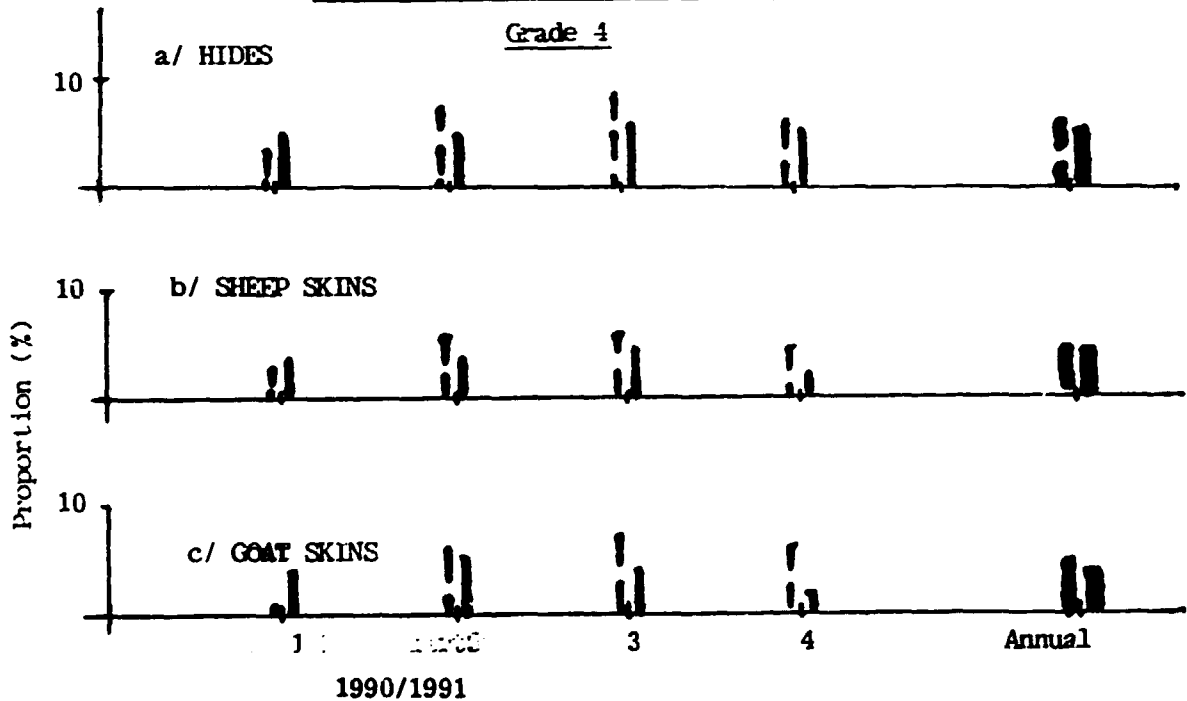


Fig. 5. Hides and Skins Quality Grades, 1990 & 1991



UNIDO

## PROJECT ALLOTMENT DOCUMENT

DA/FS/FMTC

Project Number/Amendment US/ETH/88/100 G		Status O	Country ETHIOPIA AFRICA/LOC		Pad Date Printed 93-04-08	Programme Element J 13104	P.C.A. Name MS. BULL	
Project Title NATIONAL HIDES AND SKINS, LEATHER AND LEATHER PRODUCTS IMPROVEMENT SCHEME - EAST AFRICA (ALSO REF. US/RAF/88/100)					Backstopping Officer Name: MS. CALABRO			
Authority REVISION REQUEST 30/3/1993					Multi-Fund Projects:			
					Remarks			
IDF: 1	R.B:	Type:	IGO Code:		TSS-AOS:	Donor: SWI	COB Date:	
SIGNED ORIGINAL IN DA/FS/FMTC PROJECT FILE					Medium Term Plan:			

Budget Line	Functional Title		Total	prior to 1992	1992	1993	1994	1995	Subseq.
15-00	PROJECT TRAVEL	\$.	76,190	72,249	264	3,677			
16-00	OTHER PERSONNEL COSTS	\$.	6,754	6,754					
17-01	NAT EXP. LEATHER INDUSTR	\$.	90,465	60,084	17,768	12,613			
		WM.	48.0	30.0	12.0	6.0			
18-00	SURRENDER PY OBLIGS	\$.	1,906-	835-	1,071-				
1X-XX	SUB-TOTAL	\$.	171,503	138,252	16,961	16,290			
		WM.	48.0	30.0	12.0	6.0			
32-00	STUDY-TOURS/UNDP GROUP T	\$.	116,778	104,634	11,977	167			
33-00	IN-SERVICE TRAINING	\$.	29,062	26,890		2,172			
38-00	SURRENDER PY OBLIGS	\$.	22,009-	21,937-	72-				
3X-XX	SUB-TOTAL	\$.	123,831	109,587	11,905	2,339			
41-00	EXPENDABLE EQUIPMENT	\$.	13,120	12,134	986				
42-00	NON-EXPENDABLE EQUIPMENT	\$.	604,631	563,500	4,557	32,475			
48-00	SURRENDER PY OBLIGS	\$.	11,084-	10,485-	599-				
4X-XX	SUB-TOTAL	\$.	606,667	565,248	8,944	32,475			

Project Number/Amendment: US/ETH/88/100 G

Print Date printed: 93-04-08

Page Number: 2

Budget Line	Functional Title		Total	Prior to 1992	1992	1993	1994	1995	Subseq.
51-00	SUNDRIES	\$.	20,743	13,481	3,901	3,361			
55-00	SURRENDER PY OBLIGS	\$.	264-	264-					
5X-XX	SUB-TOTAL	\$.	20,479	13,217	3,901	3,361			
99-99	PROJECT TOTAL	\$. MM.	922,480 48.0	826,304 30.0	41,711 12.0	54,465 8.0			

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PROJECT TITLE NATIONAL HIDES AND SKINS, LEATHER AND LEATHER PRODUCTS  
IMPROVEMENT SCHEME - EAST AFRICA (ALSO REF US/RAF/88/100)

BACK STOPPING OFFICER MS CALABRO  
PROJECT REVISION G  
PROJECT STATUS O - ONGOING  
PGM-ELEMENT CODE J13104  
FIRST ISSUED 89-03-08 LAST UPDATED 93-04-08  
DONOR SWI

BUDGET LINE	DESCRIPT	TOTAL ALLOTMENT		CURR YR PHASING		PRIOR YEAR EXP		CURR YR DISB		BAL CURR YR OBL		COMMITTED FUTURE YEARS (11)	BALANCE CURR YR (12)	UNCOMMITTED BALANCE (13)	YTD IMPL VERSUS PHASING (14)
		M/M (1)	DOLLARS (2)	M/M (3)	DOLLARS (4)	M/M (5)	DOLLARS (6)	M/M (7)	DOLLARS (8)	M/M (9)	DOLLARS (10)				
15-00		0 0	76,190	0 0	3,677	0 0	0	0 0	0	0 0	0				
15-01		0 0	0	0 0	0	0 0	72514	0 0	3677	0 0	0		3,677	76,190	
15-99	TRAVEL	0 0	76,190	0 0	3,677	0 0	72514	0 0	3677	0 0	0		3,677-	76,191-	
													0	1-	100 %
18-00		0 0	8,754	0 0	0	0 0	0	0 0	0	0 0	0		0	8,754	
18-12		0 0	0	0 0	0	0 0	8754	0 0	0	0 0	0		0	8,754-	
18-99	OTHER PERS	0.0	8,754	0.0	0	0.0	8754	0.0	0	0.0	0		0	0	
17-01		48 0	90,485	8 0	12,613	42 0	77851	10 0	12303	2 0	4491	0	4,181-	4,180-	133 %
17-99	NATIONALS	48 0	90,485	8 0	12,613	42 0	77851	10 0	12303	2 0	4491	0	4,181-	4,180-	133 %
18-00		0 0	1,808-	0 0	0	0 0	0	0 0	0	0 0	0		0	1,808-	
18-03		0 0	0	0 0	0	0 0	1894-	0 0	0	0 0	0		0	1,894	
18-08		0 0	0	0 0	0	0 0	12-	0 0	0	0 0	0		0	12	
18-99	SUR PY OBL	0.0	1,808-	0.0	0	0.0	1808-	0.0	0	0.0	0		0	0	
19-99	PERSONNEL	48 0	171,503	8 0	16,290	42 0	155213	10 0	15980	2 0	4491	0	4,181-	4,181-	125 %
J2-00		0 0	118,778	0 0	167	0 0	0	0 0	0	0 0	0		167	118,778	
J2-01		0 0	0	0 0	0	0 0	3,856	0 0	0	0 0	0		0	3,856-	
J2-02		0 0	0	0 0	0	0 0	8,209	0 0	0	0 0	0		0	8,209-	
J2-03		0 0	0	0 0	0	0 0	6,239	0 0	0	0 0	0		0	6,239-	
J2-04		0 0	0	0 0	0	0 0	9,807	0 0	0	0 0	0		0	9,807-	
J2-05		0 0	0	0 0	0	0 0	9,139	0 0	0	0 0	0		0	9,139-	
J2-06		0 0	0	0 0	0	0 0	8,888	0 0	0	0 0	0		0	8,888-	
J2-07		0 0	0	0 0	0	0 0	8,514	0 0	0	0 0	0		0	8,514-	
J2-08		0 0	0	0 0	0	0 0	8,488	0 0	0	0 0	0		0	8,488-	
J2-09		0 0	0	0 0	0	0 0	10,161	0 0	0	0 0	0		0	10,161-	
J2-10		0 0	0	0 0	0	0 0	17,517	0 0	0	0 0	0		0	17,517-	
J2-11		0 0	0	0 0	0	0 0	11,258	0 0	0	0 0	0		0	11,258-	
J2-12		0 0	0	0 0	0	0 0	4,879	0 0	0	0 0	0		0	4,879-	
J2-13		0 0	0	0 0	0	0 0	15,72	0 0	127	0 0	0		127-	1,899-	
J2-14		0 0	0	0 0	0	0 0	5,425	0 0	40	0 0	0		40-	5,485-	
J2-99	STUDYTOURS	0 0	118,778	0 0	167	0 0	116810	0 0	167	0 0	0		0	1	100 %

PROJECT TITLE NATIONAL HIDES AND SKINS, LEATHER AND LEATHER PRODUCTS  
IMPROVEMENT SCHEME - EAST AFRICA (ALSO REF US/RAF/88/100)

BACK STOPPING OFFICER MS CALABRO  
PROJECT REVISION 0  
PROJECT STATUS 0 - ONGOING  
POM-ELEMENT CODE J13104  
FIRST ISSUED 89-03-08 LAST UPDATED 93-04-08  
DONOR SWI

BUDGET LINE	DESCRIPT	TOTAL ALLOTMENT		CURR YR PHASING		PRIOR YEAR EXP		CURR YR DISB		BAL CURR YR OBL		COMMITTED FUTURE YEARS (11)	BALANCE CURR YR (12)	UNCOMMITTED BALANCE (13)	YTD IMPL VERSUS PHASING (14)
		M/M (1)	DOLLARS (2)	M/M (3)	DOLLARS (4)	M/M (5)	DOLLARS (6)	M/M (7)	DOLLARS (8)	M/M (9)	DOLLARS (10)				
33-00		0 0	29.062	0 0	2.172	0 0	0	0 0	0	0 0	0	0			
33-01		0 0	0	0 0	0	0 0	28891	0 0	1428	0 0	0	0	2.172	29.062	
33-99	INSERVICE	0 0	29.062	0 0	2.172	0 0	28891	0 0	1428	0 0	0	0	1.428-	28.319-	
													744	743	65 %
38-00		0 0	22.009-	0 0	0	0 0	0	0 0	0	0 0	0	0	0	22.009-	
38-02		0 0	0	0 0	0	0 0	2081-	0 0	172-	0 0	0	0	172	2.253	
38-03		0 0	0	0 0	0	0 0	19928-	0 0	0	0 0	0	0	0	19.928	
38-99	SUR PY OBL	0.0	22.009-	0.0	0	0 0	22003-	0.0	172-	0.0	0	0	172	172	
39-99	TRAINING	0 0	123.831	0 0	2.339	0 0	121492	0 0	1423	0 0	0	0	918	918	60 %
41-00		0 0	13.120	0 0	0	0 0	0	0 0	0	0 0	0	0	0	13.120	
41-10		0 0	0	0 0	0	0 0	1090	0 0	0	0 0	0	0	0	1.090-	
41-11		0 0	0	0 0	0	0 0	11749	0 0	0	0 0	0	0	0	11.749-	
41-12		0 0	0	0 0	0	0 0	280	0 0	0	0 0	0	0	0	280-	
41-99	EXPENDABL	0.0	13.120	0.0	0	0.0	13119	0.0	0	0.0	0	0	0	1	
42-00		0 0	604.831	0 0	32.475	0 0	0	0 0	0	0 0	0	0	32.475	604.831	
42-01		0 0	0	0 0	0	0 0	572155	0 0	28378	0 0	0	0	28.378-	600.833-	
42-99	NONEXPEND	0 0	604.831	0 0	32.475	0 0	572155	0 0	28378	0 0	0	0	4.097	4.098	87 %
48-00		0 0	11.084-	0 0	0	0 0	0	0 0	0	0 0	0	0	0	11.084-	
48-01		0 0	0	0 0	0	0 0	828-	0 0	0	0 0	0	0	0	828	
48-02		0 0	0	0 0	0	0 0	10458-	0 0	0	0 0	0	0	0	10.458	
48-99	SUR PY OBL	0.0	11.084-	0.0	0	0.0	11084-	0.0	0	0.0	0	0	0	0	
49-99	EQUIPMENT	0 0	608.667	0 0	32.475	0 0	574180	0 0	28378	0 0	0	0	4.097	4.099	87 %
51-00		0 0	20.743	0 0	3.381	0 0	0	0 0	0	0 0	0	0	3.381	20.743	
51-10		0 0	0	0 0	0	0 0	6236	0 0	940	0 0	1600	0	2.540-	8.778-	
51-21		0 0	0	0 0	0	0 0	2810	0 0	0	0 0	0	0	0	7.610-	
61-30		0 0	0	0 0	0	0 0	3	0 0	0	0 0	0	0	0	3-	
61-40		0 0	0	0 0	0	0 0	7715	0 0	984	0 0	60	0	1.024-	8.739-	
51-41		0 0	0	0 0	0	0 0	818	0 0	0	0 0	0	0	0	818-	

RUN-DATE 1993-11-03  
UNIDO - UMAP02/B

DETAIL REPORT ON PROJECTS AS AT 1993-10-31  
BY PROGRAM ELEMENT AND COUNTRY

PROJECT NUMBER: US/ETH/88/100

PAGE 2139

PROJECT TITLE: NATIONAL HIDES AND SKINS, LEATHER AND LEATHER PRODUCTS  
IMPROVEMENT SCHEME - EAST AFRICA (ALSO REF US/RAF/88/100)

BACK STOPPING OFFICER MS CALABRO  
PROJECT REVISION 0  
PROJECT STATUS 0 - ONGOING  
POM-ELEMENT CODE J13104  
FIRST ISSUED 89-03-08 LAST UPDATED 93-04-08  
DONOR SWI

BUDGET LINE	DESCRIPT	TOTAL ALLOTMENT		CURR YR PHASING		PRIOR YEAR EXP		CURR YR DISB		BAL CURR YR OBL		COMMITTED FUTURE YEARS	BALANCE CURR YR	UNCOMMITTED BALANCE	YTD IMPL VERSUS PHASING
		M/M (1)	DOLLARS (2)	M/M (3)	DOLLARS (4)	M/M (5)	DOLLARS (6)	M/M (7)	DOLLARS (8)	M/M (9)	DOLLARS (10)				
81-99	SUNDRIES	0 0	20,743	0 0	3,361	0 0	17382	0 0	1904	0 0	1880	0	(12) 203-	(13) 203-	106 %
88-00		0 0	284-	0 0	0	0 0	0	0 0	0	0 0	0	0	0	284-	
88-01		0 0	0	0 0	0	0 0	284-	0 0	0	0 0	0	0	0	284-	
88-99	SUR PY OBL	0.0	284-	0.0	0	0 0	284-	0.0	0	0.0	0	0	0	0	
89-99	MISC COST	0 0	20,470	0 0	3,361	0 0	17118	0 0	1884	0 0	1880	0	203	203	100 %
88-99	PROJ TOT	48 0	922,480	8 0	54,465	42 0	868013	10 0	47685	2 0	6151	0	629	631	98 %