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Leather Products Industry Panel

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UNIDO TECHNICAL ASSISTANCE ACTIVITIES IN THE  
FIELD OF LEATHER AND LEATHER PRODUCTS  
AS AT SEPTEMBER 1993\*

Prepared by

the UNIDO Secretariat

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## INTRODUCTION

The last report on UNIDO technical assistance activities was presented at the 10th LEATHER PANEL meeting in Madras, India, November 1991. At that time the *Regional Africa Hides and Skins, Leather and Leather Products Improvement Scheme* and its associated country projects, were well under way and a concept for the second phase was presented and thoroughly reviewed.

A proposal was also presented for a *Sectoral Programme of Pollution Control in the Tanning Industry in the South-East Asia Region*.

The *National Leather Development Programme* of India, which was discussed in detail during the meeting in Madras, started operations and UNIDO is the implementing agent for about half of the programme. The execution of this programme is one of the main reasons of the increased implementation figure in 1993.

The further development and implementation of these large-scale programmes have occupied much of the time of the LEATHER UNIT's staff during recent times. In spite of the fact that the donors have found the programmes presented for financing well prepared, the present financial constraints have prevented the (full) financing of these programmes. At present, the second phase of the *Africa Programme* is only partly financed and for the *South-East Asia Programme* there are, so far, only some indications that funding for certain parts may be forthcoming. More details are presented later in this report.

The development of the technical assistance delivery of the LEATHER UNIT in monetary terms<sup>1</sup> is as follows (see also Annex 1):

Year	Implementation US\$
1988	3,200,000
1989	5,580,000
1990	7,989,000
1991	5,899,000
1992	4,432,000
1993 <sup>1</sup>	7,100,000

Within the technical assistance implementation the LEATHER UNIT tried to work out new ways to achieve better sustainability of project inputs. For this assistance to private industry development through its associations has been adopted and concentrated on institute development under control of associations, direct assistance to private plants through repayments to revolving funds and utilizing these funds for further sectoral development.

There seems to be a change in the trend of the donor community's assistance criteria and priorities. The **integrated programme approach** which has been very much promoted, firstly by the leather consultations and then by the donor community and the UNDP, is now losing support

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<sup>1</sup>Actual implementation end August 1993 US\$ 6 million, which was 58% of the total implementation of the AGRO-BASED INDUSTRIES BRANCH.

due to financial constraints. On the one hand, the donor community is being informed of the good results so far obtained in the ongoing large programmes and seems to feel that the approach is right, on the other hand donors indicate that no funds are available for such programmes. We are now somewhat confused how to continue in our programme development and, therefore, seek the advice of the Panel in this respect.

The Panel recommended that the LEATHER UNIT should use associate experts and UN volunteers to a larger extent. We are pleased to inform that presently there are two associate experts and three UN volunteers working in leather projects and that the services provided by these young experts has been outstanding.

Two senior consultants are currently in the process of updating and re-writing two previous UNIDO publications, namely, "Acceptable quality levels in leathers" (new title: "Acceptable quality standards in the leather and footwear industry") and "Information sources on leather and leather products industries". We believe that these two publications will be of assistance to the industry both in the industrialized and developing countries.

The paper at the 10th Leather Panel meeting entitled "Strategies of Firms in Leather Business" has been developed by UNIDO STATISTICS AND SECTORAL STUDIES BRANCH into a printed publication entitled "The World Leather and Leather Products Industry".<sup>2</sup> We hope that this publication will assist the industrialist in developing countries to achieve a deeper understanding of the strategies and operational structures of the world leather, footwear and leather products trade and industry.

The project proposal prepared by UNIDO STATISTICS AND SECTORAL STUDIES BRANCH for a pilot project for the improvement of statistical intelligence in the leather and leather products industries has not, so far, received financial approval from any donor countries. The Leather Panel may consider if this proposal, which was recommended for implementation at the 10th meeting of the Panel, should be modified or if efforts should be continued to obtain funding in the present format.

## Pipeline

The LEATHER UNIT's project portfolio is presented in the *Annex 1, Project Implementation Forecast*, as well as on *Fig. 1*. The pipeline projects and proposals (coded 0, 1 and 2) add up to a large amount, i.e. the "firm pipeline" is over US\$ 12 million and the proposals amount to nearly US\$ 30 million within the five-year period 1993-97.

Past experience is that about half of the pipeline will find funding sources. This would mean that the LEATHER UNIT's implementation would average about US\$4 million in the coming years. This is, of course, a rough estimate which will depend on many factors including the world economic situation, the donor countries' political and sectoral priorities etc.

To predict the future implementation under the present situation, when we know that the *only constant in the world is change*, is very difficult, indeed. We are, however, optimistic that the LEATHER UNIT will continue to deliver assistance to the developing countries for the development of the world leather industry and that this development will also benefit the leather sector in the industrialized world.

The UNIDO LEATHER UNIT's technical assistance activities during the past three years are presented on the following pages.

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<sup>2</sup>Available from Shoe Trades Publishing Ltd., 36 Crosby Road North, Liverpool L22 0QN, UK at the price of US\$75.

## AFRICA

### MOZAMBIQUE

**US/MOZ/86/276**

US\$1,208,880

**Assistance in the Establishment of a Tannery in Tete, Phase II**

Under this project a small-scale, semi-mechanized tannery for bovine hides and goat skins, most of them originating from the local slaughterhouse, has been established in the capital of the Tete province with a private entrepreneur as a direct counterpart. Despite extremely difficult conditions -mainly due to security risks - progress is very satisfactory. With the improved security situation in the country, the project has made very good progress, both the tannery and the shoe workshop now operating at almost full capacity. All equipment is delivered and installed. The project is now in its second phase, consolidating the results and fine tuning the products. A management expert was fielded in January, 1993, drawing up a business plan for the project and preparing draft agreement for establishment of a revolving fund. One fellow has just been sent to Brazil for a three-month training in leather technology. The CTA is extended until end December, 1993. A mission of a leather finishing expert is also planned.

The project is funded by the DANISH GOVERNMENT (DANIDA) through the *Special Purpose Contribution to the UNIDO Industrial Development Fund (IDF)*.

### MALAWI

**DP/MLW/88/029**

US\$949,979

**Liwonde Tannery Project**

The project is operationally closed and all experts have completed their assignments, all equipment has been delivered. Through UNDP, UNIDO is now in the process of setting up a revolving fund for the transfer of equipment. The tannery went through a management and financial crisis and is now restructured.

### NIGERIA

**DP/NIR/87/022**

US\$816,697

**Assistance to the Leather Research Institute of Nigeria (LERIN)**

The objective of this project is to strengthen the existing capacities, and the technological and research capabilities of LERIN (now NARICT) by providing it with a fully upgraded leather technology section; an upgraded, enhanced operational footwear and leather goods design section; a well-functioning laboratory; and an appropriately equipped information and library section. An effluent treatment laboratory is also to be installed. Training personnel is one of the most important components of the project.

The project suffered considerable delays due to lack of local inputs, ultimately all equipment has been delivered, consultancy services provided and training completed as planned.

## REGIONAL AFRICA

**US/RAF/91/057** US\$381,000

*Assistance a l'industrie du cuir Phase II*

**XA/RAF/92/608** US\$207,000

*Equipment component of above, funded by UNIDO Industrial Development Decade For Africa (IDDA)*

The Phase I of the West African Regional project identified the key constraints in the sector of the seven countries of the project (Burundi, Burkina Faso, Cameroon, Mali, Niger, Rwanda and Senegal). The objectives of Phase II are to suggest a restructuring plan for the fiscal, economic and administrative constraints seriously affecting the sector, to identify technical and financial partners for joint-ventures, and to train key industrial and government decision makers. Considerable delays in the work of the French subcontractor has been experienced. An economic simulation model for the entire leather sector has been developed, both for macro and micro level, and is seen as a very useful tool for both governments and tanneries. The draft final report is still under review, and activities for the second sub-contract has now commenced. Equipment specifications for the rehabilitation of identified enterprises and training institutions are being finalized by the subcontractor, who is also responsible for a training seminar on the application of the simulation model to be held in Tunis.

The project is funded by the GOVERNMENT OF FRANCE (except XA/RAF/92/608, funded by UNIDO)

**US/RAF/92/142** US\$ 90,600

**UT/RAF/92/142** US\$530,750

**Cooperation in Training and Upgrading Skills in the Footwear Industry: India's Experience at the Disposal of African Countries**

The main objective of the project is to contribute to the improvement of the footwear manufacturing potential in Africa by sharing the innovation and experiences gained through implementing the self-paced training methodology on the shop-floor level. 40 manuals developed in the Footwear Design and Development Institute (FDDI), Noida/New Delhi will be printed and distributed among African institutions and shoe manufacturing plants. Indian instructors will visit selected institutions and will introduce in practice the training system. Subcontract has been awarded to FDDI, the supply of manuals is expected early 1994.

The project is financed from the Indian convertible and non-convertible contribution to UNIDO budget and being implemented in close cooperation with the IND/92/400 Leather Sector Development Programme (see next chapter).

### **US/RAF/88/100**

#### **REGIONAL AFRICA HIDES AND SKINS, LEATHER AND LEATHER PRODUCTS IMPROVEMENT SCHEME**

and associated projects

**US/ETH/88/100, US/KEN/88/100, US/MLW/88/100, US/SOM/88/100**

**US/SUD/88/100, US/ZAM/88/100, US/ZIM/88/100**

## GENERAL

The large-scale Regional Africa Hides and Skins, Leather and Leather Products Improvement Scheme, US/RAF/88/100 is the largest IDF programme and incorporates several new elements in

the so-called "programme approach". It has been structured to consist of one umbrella project (containing the regional aspects, the central management of the associated project and the international personnel) and eight associated country projects (containing the individual national needs, inputs and personnel). Certain parts of the Programme implementation are carried out under an inter-agency agreement by FAO (hides and skins improvement) and ITC (marketing).

(a) **Development Objectives:** The development objective is to contribute to the improvement of the region's and the participating countries' economy, create new employment opportunities, improve export performance, increase the income of primary producers, and provide the international leather and leather products market with additional semi-processed raw materials and finished products.

(b) **Immediate Objectives:**

- i) to establish a regional pilot scheme and to demonstrate, in practical terms, the process of hides and skins improvement from butchering and flaying to conservation, grading and collection;
- ii) to act as a catalyst to national authorities to introduce incentives for improved quality performance;
- iii) to 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.

## IMPLEMENTATION

(a) **Financial:** UNIDO is the executing agency and provides the total funding through IDF special purpose contributions. The financing of the \$4,261,000 input for the umbrella project **US/RAF/88/100** is shared by five donors, namely, Austria, the Federal Republic of Germany, France, Italy and Switzerland.

The following projects were financially approved in March 1989 from the respective donor country contributions: **US/RAF/88/100** - shared, **US/ETH/88/100** - SWITZERLAND, **US/KEN/88/100** - ITALY, **US/SOM/88/100** - ITALY (partly), **US/SUD/88/100** - ITALY, **US/URT/88/100** - ITALY, and **US/ZIM/88/100** - THE NETHERLANDS. **US/ZAM/88/100** received financing from SWITZERLAND in May 1989. **US/MLW/88/100** was financially approved by the FEDERAL REPUBLIC OF GERMANY in December 1989.

In addition to the above the GOVERNMENT OF FINLAND provided funding to strengthen the assistance in Tanzania. A new project for this purpose was designed with the project number **US/URT/91/110**. This project started to operate parallel to **US/URT/88/100** and is considered as a "second phase" of that project.

Implementation, from a financial point of view, is as in the following table (excluding 13% support costs).



Unit: US\$

Project No.	Total budget	Prior years expenditures	1993		
			Phasing	Expenditure, end August	Balance
US/RAF/88/100*	4,832,236	4,160,349	671,887	482,152	189,735
US/RAF/88/102	3,982,301	3,964,234	18,067	-23,287	41,354
US/ETH/88/100	922,480	868,015	54,465	53,406	1,059
US/KEN/88/100	443,800	421,744	22,056	7,660	14,396
US/MLW/88/100	476,000	398,370	77,630	71,053	6,577
US/SOM/88/100 <sup>†</sup>	71,289	71,289	0	0	0
US/SUD/88/100	355,600	285,815	69,785	40,293	29,492
US/URT/88/100	605,400	577,866	27,534	21,294	6,240
US/ZAM/88/100	568,000	514,225	53,775	20,176	33,599
US/ZIM/88/100	278,000	264,807	13,193	8,263	4,930
<b>TOTAL</b>	<b>12,535,106</b>	<b>11,526,714</b>	<b>1,008,392</b>	<b>683,003</b>	<b>325,389</b>

Remarks: \* The original amount was increased by adding a women development component and the balance of the discontinued Somalia project funding.  
 - Discontinued.

(b) **Substantive:** The Programme is practically completed, final reports have been prepared and are ready for distribution. The implementation of the programme functioned without major problems. It should also be remembered that the Programme is located in an area where in some of the participating countries severe political upheavals, structural and economic changes and adjustment have taken place. In spite of these outside influences the timing and quality of the services delivered was in most cases much above average and highly appreciated by the recipients.

An in-depth evaluation of the Programme was conducted in April 1991 with the participation of donor countries' representatives. The report of the evaluation provided, generally speaking, favourable comments and strongly recommended that the Programme continue through a second phase, move more to assistance activities in down-stream products development and further strengthen the private industry assistance through private industry associations.

Several requests from other (mainly PTA) African countries to join the second phase of the Programme have been received and the TPR recommended that project proposals be prepared for three additional countries - Botswana, Uganda and Namibia - and, if approved by the UNIDO PROJECT REVIEW COMMITTEE, presented for financial consideration to suitable donor countries.

### US/ETH/88/100

This SWISS-financed project ran very smoothly and the results obtained - judged by the Ethiopian recipients - are very good. The rehabilitation of the Anbessa shoe factory and the Awash tannery are the main achievements. During the last phase of the project, effluent treatment and

clean technology was given main emphasis and complete engineering drawings and detailed effluent treatment proposals were worked out for two public and three private tanneries. Financing the establishment of these effluent plants is being studied under the second phase.

It should be added that the respectable results achieved by the project are, to a great extent, due to the Ethiopian counterpart's efficient work and the fact that a very clear concept as to how the assistance should be applied was provided by the project national management.

The second phase of the project has been prepared and is expected to be financed jointly by the SWISS GOVERNMENT and UNDP.

### **US/KEN/88/100**

The Italian-financed Kenya project experienced in the beginning some delays caused by administrative problems of the Kenya Government authorities. The project document was formally signed about one year later than those of the other projects and the implementation committee (instead of the national expert as in other countries) seems to have been a source of further delays.

In spite of these initial delays a tannery rehabilitation exercise was successfully carried out and a model effluent plant was installed (financed under **US/RAF/88/102**), help was also provided to three other tanneries in effluent treatment. A shoe factory and a leather goods factory received assistance in the form of new equipment and technical services.

The hides and skins improvement activities are progressing well and results are forthcoming.

### **US/MLW/88/100**

The Malawi project, financed by Germany, started somewhat later than the other associated national projects. The initial efforts were concentrated on providing support to project **DP/MLW/88/029** for the establishment of the Liwonde Tannery. This tannery is now well established and was recently fully privatized.

A leather goods training and production centre was started within this project. A UN volunteer is presently providing assistance to operate this unit.

The hides and skins improvement activities have worked out well and provided good results. The national expert was very active in this area.

### **US/SOM/88/100**

Due to the unfortunate political situation, the project had to be cancelled. After starting the project activities, including fielding of international experts and purchasing the project vehicles (which were confiscated by the rebel forces), the project activities came to a stand-still. After spending US\$ 80,556 the balance of the funds (US\$ 178,036) were transferred to the regional project **US/RAF/88/100**.

### **US/SUD/88/100**

The situation of the leather industry in the Sudan during project implementation has been very difficult. The state-owned tanneries are being offered for sale or as joint venture objects. It was, therefore, not possible to provide any direct assistance to the tanneries before the situation is completely cleared.

Assistance was, however, given to the SATA shoe factory. A rehabilitation study was prepared and spare parts were provided against payment to the revolving fund. A private tannery was also assisted with equipment and technical services and a shoe industry development study was completed by a shoe consultant resulting in assistance in the form of production equipment for the small-scale industry association.

Most of the activities carried out in the Sudan were in the area of hides and skins improvement. Effluent treatment equipment was supplied for the joint effluent plant of Khartoum and White Nile tanneries.

The national expert was very active in the hides and skins improvement sector. Good results were achieved in the target area in Kassala, in the assistance to a slaughterhouse and starting new collection points. The feedback from the tanneries is very positive and the hides and skins are improved and fetching higher prices.

### **US/URT/88/100**

The leather sector in Tanzania is in a similar situation as in the Sudan. Para-statal factories are being offered for sale or for joint venture partnerships. Therefore, no direct assistance was possible in a large part of the project.

All the state-owned companies are now privatized and through **US/RAF/88/102** and the **US/RAF/88/100** assistance was provided especially in the effluent treatment to all the three newly privatized companies. Assistance was also provided in re-equipping the Morogoro tannery. One of the smaller private tanneries (Afro Leather) also received substantial assistance in equipment, technology improvements and in effluent treatment.

The leather goods industry was assisted through technical services and improved equipment, as well as by organizing training courses.

The activities in the hides and skins improvement area, Shinyanga, are working out very well and many improvements were achieved.

Assistance to the private industry is given on the basis of a pay-back arrangement to the revolving fund. The funds thus created are to be used for further hides and skins improvement.

### **US/ZAM/88/100**

The Zambia national project is funded by the SWISS GOVERNMENT and started its operations very efficiently in hides and skins improvement activities. Assistance is also being provided to the Bata Zambia and the project is furnishing machinery and equipment for the rehabilitation of the tannery's finishing plant. The equipment is financed under **US/RAF/88/102** against repayment in local currency to be used for further hides and skins improvement activities.

The rehabilitation of the skin tannery, as originally proposed, was cancelled. Instead, two small private tanneries were assisted, mainly in effluent treatment and technical services. A shoe factory and a leather goods factory also received assistance. Exceptionally good results were obtained in improving the quality of football production. All these activities are also under the local currency pay-back scheme for the revolving fund.

The Leather Industry Association of Zambia (LIAZ) was very actively involved in the development process and very good cooperation exists between LIAZ and the local project management.

## **US/ZIM/88/100**

The Zimbabwe project provides assistance through the Leather Institute of Zimbabwe (LIZ). This project, financed by THE NETHERLANDS, obtains very good results. The budget of the Zimbabwe national project is rather small compared to some of the other national projects. However, Zimbabwe was one of the main beneficiaries of the rehabilitation project and - as far as we can judge - this assistance is presently being efficiently utilized. Initially, great difficulties were encountered because of delays in shipment clearances. This seems to have been the result of the land-locked position of the country and non-existing UN infrastructure in the South African ports.

## **US/RAF/88/102**

### **REGIONAL TANNERY REHABILITATION SCHEME**

This complementary project was added to the East Africa Programme during Programme negotiations with the Italian authorities and is mainly composed of the equipment component for the physical upgrading and rehabilitation of production units.

This project gave the Programme a great flexibility and possibility to immediately implement the recommendations made by the various experts and studies. This project is also the founding agent of the revolving fund operations which were developed within the project. More information on this is contained in another paper being presented.

## **US/RAF/92/200<sup>3</sup>**

### **REGIONAL AFRICA LEATHER AND FOOTWEAR INDUSTRY SCHEME (RALFIS) and ASSOCIATED PROJECTS**

The project concept for this second phase was developed at the request received from the recipient countries and the recommendations of several meetings and conferences held during the first phase as well as the in-depth evaluation of the first phase.

In accordance with the requests, a certain change in the direction will take place. During this phase, more emphasis will be given to the leather finishing aspects and the manufacture of footwear and leather products. However, hides and skins improvement will continue, with the main goal of achieving the self-financing of the national schemes. The revolving fund system, started during the first phase, and the involvement of the end users - the tanneries - through their associations will be an important new aspect in this respect.

The objective is to develop the agro-based indigenous, renewable raw material source - hides and skins - to a higher value added stage and increase the significance of the leather industry sector on the country and subregional level; to strengthen the national economies of the participating countries and increase the subregion's contribution to the world markets supply of leather and leather products.

1. **Immediate Objective 1:** To continue the hides and skins improvement scheme started during the first phase of the programme (US/RAF/88/100) at the existing and expanded target areas as specified in the national documents - for the scheme to reach a self-sustaining level of operation, financially independent from large-scale international assistance.

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<sup>3</sup>Second phase of the Regional Africa Hides and Skins, Leather and Leather Products Improvement Scheme (US/RAF/88/100).

2. **Immediate Objective 2:** Strengthen the private sector's operations in the leather industry and assist in the privatization of selected para-statal companies with an active role of the industry associations, where available, and assist in establishing these association where they do not yet exist.

3. **Immediate Objective 3:** To improve the regional capabilities of leather finishing to meet the demands created by the domestic and export markets for quality leather for the leather based industries.

4. **Immediate Objective 4:** Improved capabilities for producing fish skin leather and leather products for local and export markets.

5. **Immediate Objective 5:** Improve capabilities to produce footwear components to provide the domestic footwear manufacturers with demonstration components for assembly production to increase productivity/consistency in the footwear industry as well as initiate exports from the sub-sector.

6. **Immediate Objective 6:** Improve capabilities to produce good quality footwear for supply to the domestic market and for exports at a medium-scale level.

7. **Immediate Objective 7:** Improve capabilities for producing suitable quality leather goods and leather garments for export and domestic markets including the tourist market at small- and medium-scale levels.

8. **Immediate Objective 8:** Improve tannery effluent treatment and waste management capabilities and introduce "environment-friendly technology" within the region.

9. **Immediate Objective 9:** Increase women's contribution and their effective integration into the leather industry sector's activities.

10. **Immediate Objective 10:** To improve the region's institutional capacities for manpower resource development within the leather and allied industry sectors.

### Summary of RALFIS REFAM and NALFIS inputs

<i>Project number</i>	<i>11-99</i>	<i>29</i>	<i>39-99</i>	<i>49-99</i>	<i>59-99</i>	<i>138</i>	<i>Total</i>
US/RAF/92/200	4,513,700	126,000	274,000	106,000	90,000	664,261	5,773,961
US/RAF/92/202	296,000	----	----	4,289,000	20,000	598,650	5,203,650
US/BOT/92/200	171,800	----	130,000	408,000	18,000	94,614	822,414
US/ETH/92/200	205,800	----	140,000	440,000	18,000	104,494	908,294
US/KEN/92/200	209,800	72,000	94,000	220,000	24,000	80,574	700,374
US/MLW/92/200	172,600	----	70,000	60,000	9,000	40,508	352,108
US/HAM/92/200	156,800	----	80,000	757,000	24,000	132,314	1,150,114
US/SUD/92/200	181,800	----	116,000	480,000	18,000	103,454	899,254
US/UGA/92/200	156,800	----	90,000	440,500	18,000	91,689	796,989
US/URT/91/110	96,000	30,000	48,000	414,000	14,000	74,750	676,750
US/ZAM/92/200	191,800	----	100,000	140,000	12,000	57,694	501,494
US/ZIM/92/200	215,800	----	76,000	300,000	18,000	79,274	689,074
<b>TOTAL</b>	<b>6,568,700</b>	<b>228,000</b>	<b>1,218,000</b>	<b>8,054,500</b>	<b>283,000</b>	<b>2,122,276</b>	<b>18,474,476</b>

## PRESENT FUNDING SITUATION

To obtain funds for the Programme has proved to be very difficult. The present situation, reflected below, illustrates well the situation:

### US/RAF/92/200, RALFIS

German contribution	US\$	2,491,150 <sup>4</sup>
Austrian contribution		123,894
Regular Programme through XP/RAF/93/200 (training)		100,000

### US/RAF/92/202, REFAM

IDDA through XA/RAF/93/603		300,000
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### US/SUD/92/200

Regular Programme through XP/SUD/93/200		82,000
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### US/MLW/93/200

Regular Programme through XP/MLW/93/200		18,000
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### US/UGA/92/200

Austrian contribution	US\$	740,100
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### US/URT/91/110

Finnish contribution		675,000
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### US/ZIM/92/200

Danish contribution through US/ZIM/93/106		152,000
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<b>Total contributions obtained</b>	<b>US\$</b>	<b>4,682,144</b>
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In addition to the above, the SWISS GOVERNMENT and the UNDP have agreed to a joint contribution of about US\$ 900,000 for the Ethiopia project's second phase.

If additional funds do not become available from donor sources the Programme has to be rephased and the work continued through the regional funding and the revolving funds. This would mean that the national experts have to be financed through the regional project.

## IMPLEMENTATION

### US/RAF/92/200

The second phase programme started to operate with the funds made available and the contracts of the international experts and some of the national experts were extended under the GERMAN/AUSTRIAN contributions. Several regional seminars and other training activities are scheduled to be completed in 1994/95.

### US/RAF/92/202

Equipment has been ordered through the IDDA funds obtained for the REFAM project for two Training and Production Centres for Shoe Industry (TPCSI) in Kenya and Zimbabwe. It is important to note that these training centres will be operated fully under the management and supervision of the private industry through its association. Funds for the building construction

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<sup>4</sup>13% support cost is not included in these figures.

in Kenya were provided by the revolving fund, a unique feature in UNIDO's assistance activities. The Kenyan tanners association and the large-scale industry (Bata, LIK) have also assured their full cooperation in the centre operations. A UN volunteer has been employed to provide the technical management in the initial stages.

### **US/SUD/92/200**

Through funding from the UNIDO Regular Programme US\$ 82,000 were provided for the purchase of footwear equipment for training. The machinery is expected to provide modern training in shoe technology and is to be installed at the Sudanese Leather Development and Training Institute which was transferred from the Ministry of Agriculture to the Industrial Research and Consultancy Centre of the Ministry of Industry. Negotiations continue to obtain the balance of the needed funds from potential donors.

### **US/UGA/92/200**

The Uganda project, funded from an AUSTRIAN contribution, started operations and the national expert has been selected and is expected to start to work as of early November 1993. It is understood that the ULATI tannery in Jinja, which has been out of operations for some time, is being privatized. The operation of this tannery is vital for the further development of the Ugandan leather-based industry development. For this reason some assistance may be directed to this company as soon as the ownership structure is clarified. Work has started in assisting the processing of Nile Perch leather from Lake Victoria at the Ugandan side.

### **US/URT/91/110**

The second phase of the Tanzania project is financed by a FINNISH contribution before the second phase Programme was fully formulated. The project is designed to reinforce the capabilities of the Tanzanian hides and skins, leather and leather products subsectors.

The project was submitted to the UNIDO Programme and Project Appraisal Section and the Project Review Committee in April 1991. After UNIDO approval the project was sent to the Finnish Government authorities for financial consideration. The financial approval was issued through the Project Allotment Document of 6 February 1992.

The second national hides and skins pilot scheme was established and field activities have started, and according to reports are proceeding well. The local seminar for hides and skins improvement took place in early December 1992. It should be noted that Tanzania has adopted the "Guidelines for grading of hides and skins by quality" prepared by the first phase project US/RAF/88/100.

The assistance foreseen for the improvement of tannery effluent treatment capabilities has been delayed due to the long privatization process of the three state-owned tanneries. The privatization process was recently completed and the project is at present fully engaged in solving the effluent problems of all the three newly privatized companies.

### **US/RAF/91/194, Export Promotion**

This project was designed to assist selected African countries in their initial efforts to export leather, footwear and leather products to the industrialized countries markets. A joint exhibition of fourteen African countries was organized in Pirmasens in November 1992. This first experiment turned out to be so successful that it was decided to continue the efforts. Attendance of six African shoe manufacturers was organized in the 76th GDS in Düsseldorf in September 1993 and it is expected that eight African leather manufacturers and a number of footwear and leather goods manufacturers will be invited to participate in the combined Pirmasens IMS and Leder Woche in April 1994.

## ARAB STATES

### EGYPT

**US/EGY/90/253**

US\$568,000

**Assistance to a Ladies' Shoe Factory**

The project was initiated by the very good results achieved in the Abbouda Shoe Factory, where the UNIDO technical assistance project (US/EGY/88/044) led to an agreement with Bally International on production and marketing of branded men's shoes in Egypt. A UNIDO staff member together with an international expert evaluated five private companies and finally selected Hafez & Ouda to implement high quality ladies' shoe manufacture. Bally International was contracted to transfer the know-how and two UNIDO experts: a footwear technologist and a leather finishing specialist assisted in starting up the production of upgraded shoes. The contractor transferred five new styles together with their full specifications, documentation and guidelines on the technological process. Hafez & Ouda purchased some balancing equipment required for high quality work. Three Egyptian tanneries received direct assistance in finishing according to international standards. The UNIDO expert in footwear technology assisted local personnel in preparing the new plant layout, introducing component pre-manufacturing, retraining of operators and production management - with special reference to quality control. The designer and several supervisors received retraining at Bally in Switzerland. A large number of visitors from various local footwear manufacturing units attended the seminar in December 1992, where the contractor presented interesting papers on product development, quality control and marketing. The seminar was followed by a full-day visit to Hafez & Ouda and all the documentation supplied to the company was made available for the entire Egyptian leather and footwear sector. The project is operationally completed.

The project was financed by the GOVERNMENT OF SWITZERLAND through the UNIDO Industrial Development Fund.

**SI/EGY/90/802**

US\$39,700

**Assistance to El Nasr Tannery**

The objective of this project was to assist the El Nasr Tanning Company to improve the quality of finished upper leathers based on domestic cow and buffalo calf hides and skins - primarily of full grain aniline and semi-aniline type.

The project was operationally completed in 1993. Two consultants were fielded, one in leather finishing and one in tannery processing. Both consultants gave very valuable advice and extensive training and demonstration of modern processing methods, on formula and recipes, all with a view of improving quality suitable for export to external markets.

### TUNISIA

**SI/TUN/90/801**

US\$81,990

**Assistance to the Centre National du Cuir et de la Chaussure (CNCC) in Treatment of Tannery Effluent**

The expanding tanning industry in Tunisia has major difficulties coping with the ensuing environmental problems, whereby the Government has taken serious steps to enforce environmental



legislation which includes the tanning industry. The purpose of this operationally completed project was to assist the Tunisian leather and allied industry sector and the Centre National du Cuir et de la Chaussure in drafting a plan of action for solving the effluent treatment problems in the tanning industry. A comprehensive survey of pollution in the tanning industry of the country has been carried out. Tanneries have been given a rough concept of possible technical solutions to the pollution problems (mainly effluent treatment plants). A very well designed pilot effluent treatment unit and a pollution control laboratory at CNCC has been installed. Finally, a seminar for the industry and the environmental agencies of Tunisia has been organized with demonstrations at the CNCC pilot plant. The response to and the impact of this seminar was very encouraging.

## ASIA AND THE PACIFIC

### CHINA

**SI/CPR/90/801**

US\$24,500

**Assistance to Shanghai Leather Corporation in Effluent Treatment**

The objective of this operationally completed project was to assist in containing pollution emanating from the tanning operations in the city of Shanghai. More specifically, the purpose was to assess the present situation concerning the effluent treatment plant being erected in the Da Chang Tannery Complex, check on the technology proposed to be used in the new tanneries and to advise and assist the Shanghai Leather Corporation in modifying the plant so that local effluent treatment standards can be met.

A high-level consultant appraised the situation at the site and suggested some modifications and improvements, as applicable, and prepared a specification for monitoring equipment. A follow-up project has been designed for China, including the Da Chang Tannery Complex, under the *US/RAS/92/120 Tannery Pollution Control Programme for South-East Asia*.

### INDIA

**US/IND/90/244**

US\$1,357,965

**Assistance in Treatment of Tannery Effluent**

The objective of the project is to assist in the containment of environmental degradation emanating from a selected cluster of tanneries in Tamil Nadu. The project constitutes the national project for India under the *US/RAS/92/120 Tannery Pollution Control in South-East Asia* programme. Specifically, the project is assisting the Tamil Nadu Pollution Control Board (TNPCB) and Central Leather Research Institute (CLRI) in establishing a large *common effluent treatment plant* (CETP) for a cluster of tanneries near Pallavaram, Madras. In addition, another tannery cluster at Ranipet and two individual tanneries are getting assistance in design and establishing low-cost treatment systems. A study tour was arranged for the operators/managers of the ETPs to Italy and Turkey in 1993.

Two subcontractors, one for cleaner technologies and one for CETP, are currently carrying out field work. Cleaner technologies (chrome recycling and/recovery, mechanical desalting, ammonium free (carbon dioxide) deliming and wet-process control, sulphide reduced unhairing) are being installed at selected tanneries in the Pallavaram cluster. After some initial delays in civil works for the ETPs and ordering mainly local equipment for cleaner technologies, the project is now progressing well.

A site for the pilot effluent treatment and demonstration plant to be established under *US/RAS/92/120* pipeline programme has been allocated adjacent to the CETP at Pallavaram.

The project is funded by the GOVERNMENT OF SWITZERLAND through the Special Purpose Contribution to the UNIDO *Industrial Development Fund*.

**DG/IND/92/400**

US\$15,050,000

**National Leather Sector Programme**

Since 1989 UNIDO has been heavily involved in preparing an integrated development programme for the Indian leather and related industries. It was virtually the first attempt to implement the programme approach in a UNDP financed country programme, although a great deal of experience gained through launching and running the regional Africa programme **US/RAF/88/100** had been utilized. Based on the Programme Document prepared by UNIDO's IO/T/AGRO/LEATHER UNIT, the programme was approved by UNDP Headquarters in July 1991 for *Government execution*. At the same time this programme is one of the first being implemented under the new UNDP/UNIDO successor arrangement. Due to certain administrative constraints, the programme was only started in June 1992.

The overall objective of the programme is to enhance the production and marketing potential of the Indian leather products industries and enable them to compete on international markets. The target is to achieve a 10 percent share of the international trade of leather products. In order to achieve these aims, the following structure was established:

<i>Objective</i>	<i>Output</i>	<i>Responsible Institutions</i>
<b>Human resources development</b>	Footwear technology training	CLRI, FDDI, IILP
	Training methodology	FDDI, CLRI
	Training centre in Dewas for operatives in footwear sector	FDDI, Tata Exports Limited
	Training centre in Ambur for operatives in footwear sector	FDDI, Farida Shoes
	Training centre in New Delhi for operatives in footwear sector	FDDI, Indian Chamber of Leather Industry
	Training centre in Maharashtra for operatives in footwear sector	FDDI, Leather Industries Federation
	Leather garment and production training centres	CLRI, NIFT
	Leather goods production training in Calcutta	CLRI, Industry Association
	Upgraded footwear training in Madras	CLRI
	Leather goods and garment training in Madras	IILP
	Training of designers and pattern cutters	FDDI, NIFT
	Skill upgradation cum common facility centre in Ambala	KVIC
	Post graduate training programme	CLRI
Management training programme	CLRI, FDDI	

<i>Objective</i>	<i>Output</i>	<i>Responsible Institutions</i>
	Upgraded footwear technology colleges in Agra and Madras	CFTC
	Machine maintenance training	PDTC
<b>Product development</b>	Standardized shoe last system	CLRI
	Design studios	CLRI, FDDI
	Footwear CAD centres in New Delhi and Madras	CLRI, FDDI
	New footwear, leather goods and garment product ranges	CLE, CLRI, FDDI, NIFT
	Technical assistance to existing and new production units	CLRI, FDDI, NIFT
	Shoe component manufacturing units	FDDI
	Upgraded split and harness finishing technology	CLRI
	Development of new chemicals for leather shoe finishing	CLRI
	Development of moulds for manufacturing unit soles	CLRI
	Development of enzymatic dehairing agent	CLRI
<b>Strengthening R&amp;D capabilities</b>	Upgraded footwear testing laboratories	CLRI, FDDI
<b>Improved support services</b>	Upgrading shoe machines	PDTC
	Mould design centre	CLRI
<b>Strategy for pollution control</b>	Common effluent treatment plant	GOWB
	Recommendations on cleaner technology	CLRI
	Chrome recovery unit	CLRI
	Improved laboratories	CLRI
<b>Enhanced export</b>	Marketing packages including product development	CLE
	Image building campaign	CLE
	Promoting joint ventures	CLE
	Resource centre for dissemination of general and technical information	FDDI
	Market research unit	CLE
<b>System of coordination</b>	Coherent professional training system	CLRI, FDDI, PMU
	Efforts on women integration in industrial activities	CLRI, PMU

<i>Objective</i>	<i>Output</i>	<i>Responsible Institutions</i>
	Improved statistical intelligence	PMU
	A study on the investment needs to the industry	PMU
<p> <b>CLE</b> - Council for Leather Exports, <i>Madras</i>  <b>CFTC</b> - Central Footwear Training Centres, <i>Agra and Madras</i>  <b>CLRI</b> - Central Leather Research Institute, <i>Madras</i>  <b>FDDI</b> - Footwear Design and Development Centre, <i>Noida (New Delhi)</i>  <b>IILP</b> - Indian Institute of Leather Products, <i>Madras</i>  <b>GOWB</b> - Government of West-Bengal, <i>Calcutta</i>  <b>KVIC</b> - Khadi and Village Industries Corporation, <i>Ambala</i>  <b>NIFT</b> - National Institute of Fashion Technology, <i>New Delhi</i>  <b>PDTC</b> - Prototype Development and Training Centre, <i>Madras</i>  <b>PMU</b> - Programme Management Unit, <i>Madras</i> </p>		

In order to ensure manageability of the programme and clarity in handling budgets, the programme is organized in 11 projects, whereby each major institution responsible for one or participating in delivering some of the above outputs has its own budget. The first meeting of the PROGRAMME MANAGEMENT COMMITTEE (PMU) decided to invite UNIDO as an implementing agency to take full responsibility for four institutions/projects and handle part of two other projects; the other parts and the remaining five projects are being implemented by the Government of India. PMU, following the instructions received from UNDP, approved the budgets only for the first 18 months - the rest is subject to the recommendations of the evaluation and work-plan mission scheduled for October/November 1993.

The budgetary allocations are indicated on the next page.

Although UNIDO was not requested to assist in establishing a common effluent treatment plant in Calcutta (IND/92/406), the Vienna-based Headquarters organized a study tour for four Indian specialists to Italy and Turkey, where valuable information was collected on effluent treatment, relocation of tanneries and starting up new industrial estates with environmental considerations. The feasibility study on the Calcutta effluent treatment plant, prepared by CLRI, has been screened and evaluated by UNIDO staff members.

UNIDO prepared a project formulation framework for the integration of women in the leather sector development programme in India. It proposes introducing a mobil training unit for women engaged in household, improving the socio-economic position of women employed in the organized sector and action to be taken for encouraging entrepreneurship among women.

#### **DG/IND/92/401**

Assistance to Central Footwear Training Centre (CFTC) in Agra

#### **DG/IND/92/402**

Assistance to Central Footwear Training Centre (CFTC) in Madras

The main objective of this project is to establish appropriate facilities for training at the technical, middle management level of the Indian footwear industry. The subcontract for transferring training know-how (syllabi, entry and examinations requirements, handouts etc.), monitoring examinations and providing diploma equivalencies was awarded to the Textile Institute (the former Clothing and Footwear Institute) in the UK. According to the training programme, the CFTCs will supply two years *professional education*: the first year provides general training in footwear manufacturing (certificate degree), the second year offers specialization in design,

technology, plant management, marketing (diploma degree). Those who successfully complete the two-year training will have the right to complete their education at South Fields College in Leicester.

Project	Institution	Total initial allocation	1992+1993 (revised)**	1994 (proposed)	1995 (proposed)	Total
401	CFTC, Agra	1,034,000	641,550	324,500	224,000	1,190,050
402	CFTC, Madras	966,000	457,513	338,500	218,000	1,014,013
403	CLE	1,913,300	1,157,498			
404-U	CLRI	2,036,900	1,121,583	947,014	213,000	2,281,597
404-G	CLRI	449,800	903,857			
405-U	FDDI	2,320,100	751,057	407,916	356,700	1,515,673
405-G	FDDI	1,679,900	934,901			
406	GOWB	1,600,000	121,043			
407	IILP	300,000	230,581	210,500	174,000	615,081
408	KVIC	900,000	430,500			
409	NIFT	600,000	304,155			
410	PDTC	400,000	239,171	248,000	79,500	566,671
411	PMU	850,000	293,700			
Total	UNIDO	7,057,000	3,441,455	2,476,430	1,265,200	7,183,085
	GOI***	7,993,000	4,145,654			
GRAND TOTAL		15,050,000	7,587,109			

Remarks:

- \* The original programme number was IND/90/040, which was then changed to IND/92/400 allowing differentiation among projects. All UNIDO implemented projects start with DG to indicate source of funds (e.g. the CFTC project in Agra has the project number DG/IND/92/401). The two projects implemented jointly are differentiated by additional two digits: 37 - UNIDO, 99 - GOI.

\*\* Allocation for GOI and estimated expenditures by UNIDO.

\*\*\* GOI = Government of India.

Implementing agency: U - UNIDO, G - GOI.

Completely new equipment has been delivered to both Centres: it will be installed in October/November 1993 under the supervision of a UNIDO expert. Six instructors took part in the three-month fellowship training in the UK. Four experts have been recruited by UNIDO who will assist CFTC personnel in implementing the training programme.

Unfortunately there were some problems in delivering the Government inputs and changing the management pattern of the CFTCs. UNIDO, together with the Programme Management

Committee, insisted on establishing direct (private) industry control over the Centres, which should guarantee the availability of recurrent inputs (budget, materials) and the required quality of training. UNIDO was informed that satisfactory arrangements have been made and all the necessary prerequisites have been delivered.

#### **DG/IND/92/404**

##### **Assistance to Central Leather Research Institute (CLRI) in Madras**

UNIDO was requested to implement six outputs of the entire projects earmarked for CLRI. AFPA in France was subcontracted to transfer its six-month vocational training system for leather goods cutting and assembling, leather garment cutting and assembling, footwear cutting, upper making and assembling. AFPA has already transferred the documentation, will assist in implementing the training programme, monitor examinations and provide certificate equivalencies.

A complete set of equipment has been delivered for the new leather goods training pilot plant in Calcutta and the leather garment training pilot plant in Madras. Balancing equipment for the footwear pilot plant was also purchased and supplied to Madras. Through the UNIDO fellowship programme, nine instructors from CLRI were retrained in France for three months. The head of CLRI's leather goods and garment training department made an extensive tour of the USA and Europe to study the management of professional training institutions dealing with leather products.

In order to establish appropriate shoe last standards, a contract was awarded to Optimer Ltd. in Hungary to transfer the foot measurement survey know-how, supply high technology equipment for the mass measurement programme, provide the computer programme for mathematical, statistical analysis of collected data and assist in preparing size ranges and sample lasts. One CLRI specialist studied the technology in Hungary, two others have been retrained in shoe last modelling.

Computers and audio-visual equipment were supplied for establishing the Fashion Studio. Its Chief received three-month fellowship training at Art Sutoria in Italy.

An UNIDO expert was employed to assist CLRI in utilizing the available CAD system for services to be rendered to the local shoe industry. As a result CLRI is using its facilities for pattern engineering and size grading against orders booked at local shoe manufacturing units. Through CLRI another UNIDO expert assisted several shoe factories in developing new shoe ranges.

#### **DG/IND/92/405**

##### **Assistance to Footwear Design and Development Institute (FDDI) in Noida/New Delhi**

Here again UNIDO is involved only in implementing certain outputs of the project. Several FDDI personnel received retraining in France and the UK. A complete CAD system was purchased, which is installed in Noida, and has started its services in pattern grading for the local shoe industry. An expert carried out a survey on the existing conditions with regard to PVC and TR unit sole manufacturing in India and assisted different factories in upgrading their technology. UNIDO has also purchased shoe component manufacturing machinery which is being installed at FDDI for demonstration, extension services and training purposes.

#### **DG/IND/92/407**

##### **Assistance to Indian Institute of Leather Products (IILP) in Madras**

IILP is the result of an initiative taken by the Indian, private industry to extend the training facilities available in the country. Its shoe manufacturing pilot plant was equipped using local fund sources. The leather goods and leather garment training sections will receive machines from UNIDO by end-1993. Four instructors participated in the fellowship (re)training programme in France. Two courses in the field of footwear manufacturing were started mid-1993. In the future

the Institute will implement AFPA's vocational training programme in footwear, leather goods and leather garment technology.

## **DG/IND/92/410**

### **Assistance to Prototype Development and Training Centre (PDTC) in Madras**

The objective of the project is to enhance the support industry potential in India, namely to develop appropriate equipment for the local footwear, small-scale industry sector. Bruggi S.p.A. was contracted to transfer complete documentation, supply sets of components and assist in assembling six shoe components (prefabricated unit soles made of genuine leather). The documentation and components have been supplied, now PDTC is producing identical components. Bruggi representatives will visit PDTC by end-1993 and will assist in assembling the machines, at the same time they will advise on the changes necessary in the documentation, if required. After having completed this exercise, the documentation will be offered for local machinery manufacturers for serial production.

The Director of PDTC made a study tour to France, Germany and Italy. Another study tour is being organized for five PDTC specialists to Italy and the Czech Republic. Several PDTC engineers and middle management staff will visit Bruggi to study the technological process of the transferred equipment.

An UNIDO expert spent two months in India and visited several private shoe machinery manufacturing units. He assisted in upgrading the swing-arm hydraulic beam cutting press, the upper leather splitting and the skiving machine. The expert will be fielded in October for his second split mission.

Another UNIDO expert ran a practical course on shoe machinery maintenance. This course will be repeated in 1994.

## **MYANMAR**

### **DP/MYA/86/002**

US\$2,600,457

#### **Development Centre for Rubber Technology (DCRT)**

The immediate objective of the project was to establish DCRT as a technical capacity that will enable the manufacture of consumer rubber products in Myanmar (formerly Burma) at internationally acceptable standards of price and quality.

Implementation commenced in 1987; however, due to internal problems, it was suspended for more than a year. Project operations resumed at the end of 1988, at which time the Government made a special effort to supply buildings and the premises. With UNIDO's active contribution, three buildings - the physical and analytical laboratory, the compounding pilot plant (including the workshop) and the material store - have been completed. The latex pilot plant and a training building with offices are under construction. UNIDO has supplied all the technical and laboratory equipment as well as site equipment and material which is not available in the country (the total value was approximately US\$1.4 million). Eight fellows received (re)training in up-to-date latex/rubber technology in the UK for three months each. This personnel is now working at the DCRT.

The CTA, the site engineer and six other experts - in the fields of physical and analytical testing, compounding, latex technology, rubber footwear manufacture and mould designing - spent 64.5 m/m in the field. Altogether 22 m/m fellowship training was provided to DCRT personnel in Hungary and the UK.



The project was evaluated by UNDP in 1992. Although it was acknowledged that DCRT has very modern technology and become a very unique institution in the region, due to severe constraints and local problems its sustainability is more than questionable. It was recommended to provide further assistance but as the UNDP country programme had been seriously cut, there is no chance to do so.

The project is operationally completed.

## **PAKISTAN**

**DP/PAK/84/010**

US\$1,030,389

**Assistance to the Hyderabad Leather Footwear Centre (HLFC)**

This technical assistance project aimed at establishing HLFC under the Sind Small Industries Corporation (SSIC). The Centre should assist the shoe maker community - consisting of several thousand small-scale manufacturers - in upgrading their technology, introducing semi-mechanized manufacturing processes and improving their product range.

A completely new pilot plant was installed in the Centre. Five local instructors - after having been trained by UNIDO experts in Pakistan - spent three months at South Fields College in the UK. The international project personnel included a CTA, a shoe pattern making expert, a maintenance engineer, a shoe upper stitching expert and a quality control expert as well as consultants in upper manufacturing and lasting operations.

Several training courses were conducted in pattern making, grading and upper making. HLFC is now providing common facility services by offering the use of its technological equipment for various operations. The up-to-date PVC/TR injection-moulding machine is used for the production of men's unit soles. The sale of these components helps to cover part of the running costs of the Centre.

The final tripartite review meeting held in May 1993 declared the UNIDO assistance very useful. At the same time UNDP and UNIDO representatives expressed their concerns with regard to the future of the Centre as SSIC does not seem to keep up its commitments.

The project is operationally completed.

**DP/PAK/89/025**

US\$481,537

**Treatment of Tannery Wastes in Kasur**

The cluster of tanneries at Kasur, Pakistan is a serious environmental threat to the local population and the environment. Valuable land is being inundated by untreated tannery effluent. The purpose of this preparatory assistance project was to assess the pollution load, collecting all relevant data; to prepare a detailed design of a low-cost common effluent treatment plant, suitable to local conditions, with detailed equipment specifications estimates of investments needed and operation and maintenance costs. Further, to propose the organizational set-up and distribution of operation costs; prepare tender documents for the ETP. A project document for the actual implementation of the ETP was produced during a joint formulation mission in 1992, containing all the required information. The follow-up project, which will be more than US\$ 9 million is to be co-financed by UNDP and the Governments of the Netherlands and Norway. Currently, the project document is under review in UNDP, New York. Essential preconditions for launching the project are: a) organizational set-up secured to ensure sustainability (maintenance, operation costs distribution, management) and b) all donors are willing to contribute according to agreed cost-sharing.

**DP/PAK/89/027**

US\$729,118

**Facility-cum-Training Centre for Leather Finishing in Kasur**

The aim of this project is to provide the small and medium-size tanneries in Kasur with suitable facilities and equipment for the proper finishing of various types of leather, including essential quality control. The plant is to also serve as a model to be duplicated by propulsive medium-scale tanners.

The project is, unfortunately, suspended. All equipment has been delivered to the project site, but the infrastructure (water, electricity, fittings etc.) is incomplete, due to difficulties by the Government to secure funds for the infrastructure. The Export Promotion Council has now agreed to finance the infrastructure of the centre, and the building is planned to be ready in January 1994. The CTA and the engineer to commission the machinery will then be fielded. The centre will actually be operated by the Tanners Association of Kasur.

**NC/PAK/93/040**

US\$72,000

**Survey of the Leather Sector in Pakistan**

The objective of the project was to assess the present situation of the leather-related trade/industry in Pakistan covering hides and skins resources, production and marketing opportunities, export potential, employment generation and environmental aspects. The survey was made under the UNDP/UNIDO TSS-1 programme.

Two comprehensive studies were made by an international and a national experts and two UNIDO staff members. One deals with macroeconomic considerations and offers policy guidelines for the Government to follow when decisions are made regarding leather industry development in the country. The other paper analyses the existing structure of the leather-based trade, the world-wide trends in the sub-sector and the potential of Pakistan. Based on these two basic surveys, the programme document was drafted, which establishes coordination of efforts and utilization of financial resources in order to increase the overall output - including export - of the local industry. Special attention is paid to human resources development, marketing and pollution control.

The documents have been submitted to the Government of Pakistan through UNDP. It is expected that the policy guidelines and the integrated development programme will be discussed in Islamabad with all parties concerned before the end of 1993.

## THE AMERICAS

### BRAZIL

**SF/BRA/92/003**

US\$27,330

**High Level Technical Assistance for the implementation of the Regional Centre of Technology for the Leather and Footwear Industry (Campina Grande)**

This project was designed to give assistance to SENAI in the Nordeste Province of Brazil in establishing the above centre. A technical report was produced containing findings and recommendations on establishing the Regional Centre and an adjacent ETP. The report includes recommendations on introducing cleaner technologies in the leather industry of the region, as well as detailed design and technical specifications of the ETP. The project was self-financed by the Government of Brazil (SENAI).

**US/BRA/91/012**

US\$62,000

**Assistance in the Operation of a Joint Tannery Effluent Treatment Plant in the Franca Region - Sao Paulo State**

Franca is the major footwear (especially men's shoes) producer and export centre in Brazil and the second most important centre of leather production in the country. Due to its high degree of industrialization, Franca witnessed a considerably high population growth in the past few years. Consequently, the tanneries which were initially located outside town suddenly became surrounded by residential areas.

Therefore, the purpose of the project is to assist in improving the efficiency of the joint effluent treatment system being established in the industrial zone of Franca, including the primary systems installed at individual tanneries.

One leather technologist and one effluent treatment expert completed their split missions in 1993. A further discussion with SENAI is expected to lead to a follow-up project.

### COLOMBIA

**SI/COL/92/801**

US\$144,000

**Assistance to the San Benito Tanning Industrial Zone**

The industrial zone of San Benito in Santafé de Bogotá is of key importance due to its high output of leather used export products. The San Benito Tanning Zone is experiencing severe problems of pollution. The liquid and solid effluents produced by the leather manufacturing units and other production units of the district, have caused chronic floods in the San Benito area, mainly due to a lack of an adequate and efficient aqueduct and sewerage system.

The aim of the project is to assist the Government of Colombia in introducing cleaner technology and in establishing a tannery effluent treatment system at the San Benito tanning industrial zone in order to ensure further successful tanning operations and even strengthen the country's export potential without degrading the environment.

The subcontractor is now successfully working in the field. The first draft technical reports are expected shortly. The subcontractor is to collect relevant data about current pollution load and

sewerage system, and prepare a techno-economic study with recommendations on pre-treatment on wastes, propose cleaner technologies to be introduced, design of a CETP and safe disposal of sludge.

## **COSTA RICA**

**US/COS/85/038**

US\$740,600

**Asistencia al Centro de Tecnologia del Cuero, CETEC, Phase II**

The objective of the project was to strengthen the Centro de Tecnologia del Cuero (CETEC) to enable it to consolidate and increase its technical services and transfer technology for the benefit of tanneries in the country and in the region. This included:

- (a) training of technical staff in charge of supervision and operation of tanneries through technical courses and seminars;
- (b) introduction of process and quality control;
- (c) improving the capacity of the pilot plant enabling it to carry out a wider range of processes.

In particular, the pilot plant is to render services to small tanneries which lack specific machinery.

The major part of additional tanning equipment for the pilot plant as well as rather sophisticated laboratory equipment and a PC with accessories and software have been procured and installed. A mobile pilot and demonstration effluent treatment plant has been designed, installed and already used for optimization/redesign of existing treatment units.

To date, several short and one long training courses have been conducted at CETEC, San Jose, such as in computer applications in the shoe industry, chrome tanning, basic leather technology, etc. with a total of 146 trainees. Five trainees have been on fellowship training in Mexico, one in Italy and one is currently in Spain. Five study tours to Europe, Asia and Latin America have also been undertaken.

With UNIDO's support, a footwear consultant at CETEC has prepared a special study on the leather and shoe industry in Central America, which was requested and financed by CEPAL.

The project was operationally completed in 1993.

The project was funded by the GOVERNMENT OF ITALY through the Special Purpose Contribution to the UNIDO *Industrial Development Fund*.

## EUROPE

### HUNGARY

**US/HUN/92/195**

US\$884,000

**Upgrading Product Ranges and Quality in the Hungarian Footwear Industry**

The project aims at adapting the Hungarian industry sector to meet the requirements of the world market. It is planned that the technology of high quality shoe manufacturing will be transferred and efficient quality control systems will be established in selected Hungarian production units.

During the first phase of the project, nine private shoe factories were visited and assessed by a team consisting of a representative from a reputable European footwear company, a UNIDO staff member and two local specialists. Three plants were selected for practical upgrading. The second phase was started in September 1993 by contracting Bally International for transferring the required technology. The contractor has evaluated the local supply of main materials and components, the training facilities available in the country and collected samples for quality testing. Representatives of the selected Hungarian shoe factories will visit Bally in October for the joint selection of styles.

The implementation of upgraded technology will take place in 1994. In addition, international experts will assist Hungary in introducing the Total Quality Control concept, as well as the ISO 9000. Local specialists will participate in study tours and fellowship training abroad. The transfer of technology will be followed by a workshop at each plant, whereby interested local manufacturers will have direct access to the information available through the project.

The project is financed by the GOVERNMENT OF SWITZERLAND through a special purpose contribution to the UNIDO *Industrial Development Fund*.

### TURKEY

**SI/TUR/90/802**

US\$62,000

**Assistance to AYKOSAN in Relocation of the Shoe Industry**

The objective of the project was to improve the conditions of the relocation of the shoe industry of Istanbul by upgrading plant layouts for the Ikitelli complex, recommending incentives for export and forming a common marketing organization for small and medium-scale manufacturers. A footwear technologist provided assistance in designing up-to-date workshop layouts and made recommendations on possible ways to mechanize the production processes. The UNIDO marketing expert ran a course on international trade, exporting and quality requirements for local manufacturers. He also recommended to constitute a joint export council with the relevant Government offices.

Due to the considerable delay in construction works at Ikitelli, to date only a small portion of the industry has been relocated. The new export organization is being set up and will probably be operational early next year.

The project is operationally completed.

## **INTERNATIONAL (GLOBAL)**

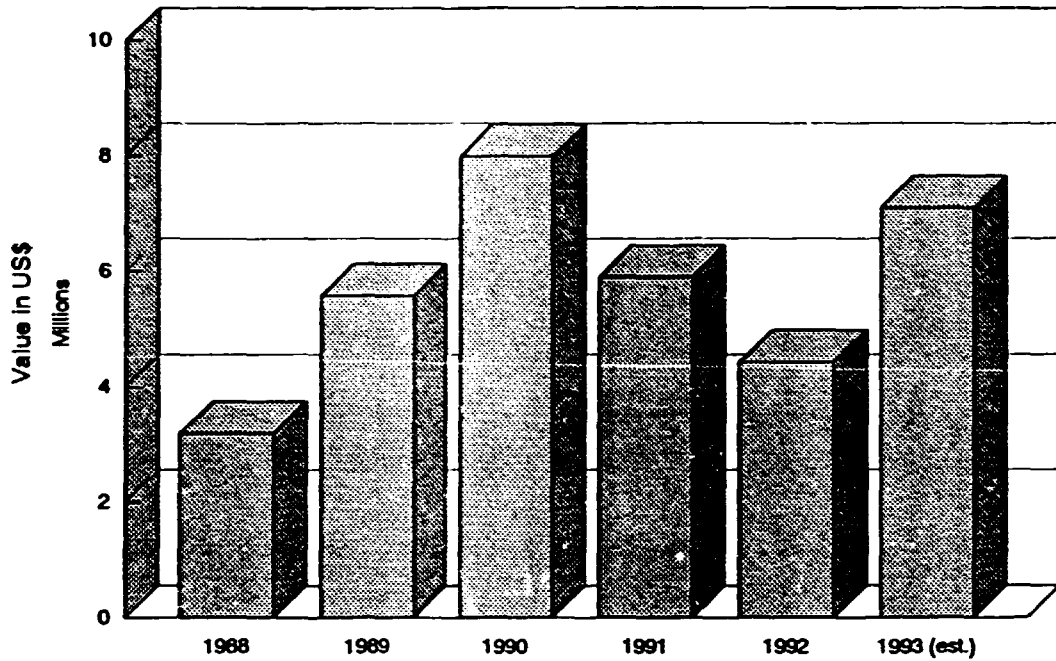
**UC/INT/93/054**

**US\$60,000**

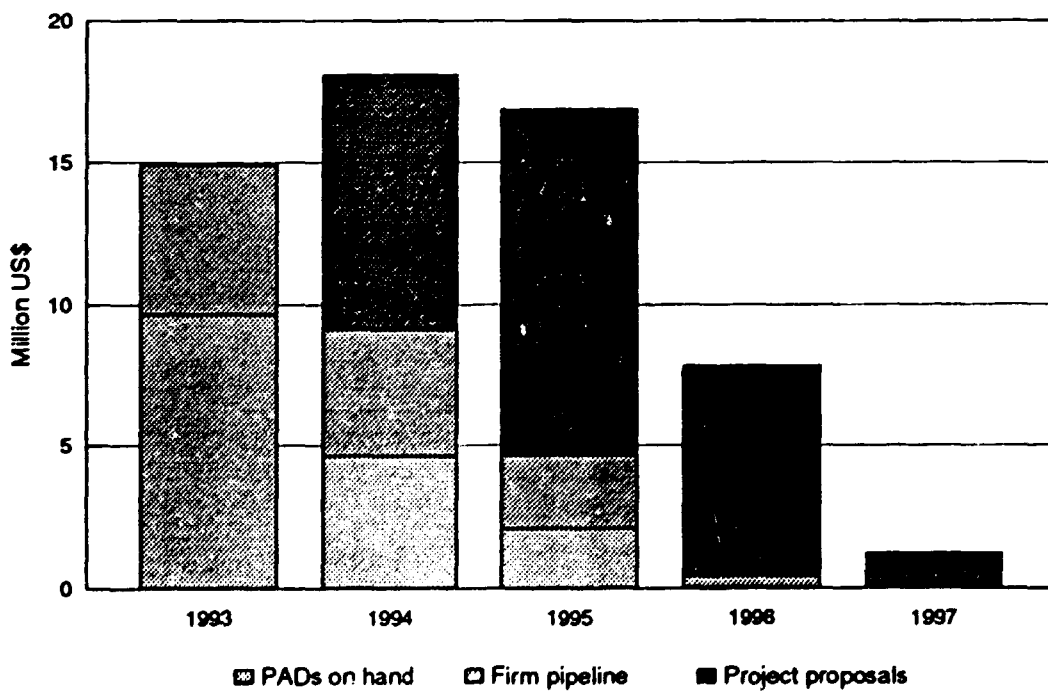
**Selection of Equipment for Pollution Control Laboratories in the Tanning Industry**

The project aims at facilitating the selection of equipment for pollution control laboratories in the tanning industry. A manual will be published to cover several aspects including assessment of pollution levels in effluents, methods of analysis of pollution levels, availability of equipment and recommendation for selection of equipment. The project is operational, with a consultant drafting the study.

**IMPLEMENTATION OF TECHNICAL ASSISTANCE PROJECTS  
in the field of leather, natural rubber and derived products**



**PROJECT PORTFOLIO**



## ANNEX 2

## PROJECT IMPLEMENTATION FORECAST

IO/T/AGRO/Leather Unit

No.	Project No.	Rev	Project description	Prior years	Coming years	1993	1994	1995	1996	1997	1998
			PAD on hand	19,224,165	16,373,400	9,652,094	4,637,862	2,083,444	0	0	0
			Firm pipeline	0	12,750,714	5,299,030	4,469,985	2,571,699	410,000	0	0
			Sub-total	19,224,165	29,124,114	14,951,124	9,107,847	4,655,143	410,000	0	0
			Project proposals	0	29,846,818	0	8,977,050	12,213,468	7,438,000	1,218,300	0
			TOTAL	19,224,165	58,970,932	14,951,124	18,084,897	16,868,611	7,848,000	1,218,300	0
1	US/BRA/91/012	C	Joint Effluent Treat. Plant in Franca	47,623	14,377	14,377					
2	SI/COL/92/801	B	San Benito Tanning Ind'l Zone		144,000	144,000					
3	US/COS/85/038	D	Centro de Tecnologia del Cuero, CETEC	733,653	6,947	6,947					
4	US/EGY/88/044	D	Upgrading Selected Shoe Factories	352,204	7,796	7,796					
5	SI/EGY/90/802	B	Assistance to El Nasr Tannery	33,456	6,244	6,244					
6	US/EGY/90/253	C	Ass. to a Ladies' Shoe Factory	563,414	4,809	4,809					
7	US/ETH/88/100	G	Nat'l Hides + Skins, Leather + L.P.	868,014	54,466	54,466					
8	TF/GLO/92/002	B	Associate Exp. F. Runchel		97,255	79,669		17,586			
9	UC/HUN/92/195	A	Ph.1 Upgrd.Ranges/Quality of Footw.Ind.		32,000	32,000					
10	US/HUN/92/195	A	Upgrd.Ranges/Quality HUN Footw.Ind.		852,000	452,000		400,000			
11	DG/IND/92/410D	D	PDTC		566,671	239,171		248,000		79,500	
12	US/IND/90/244	C	Treatment of Tannery Effluents	246,817	1,111,148	998,013		113,135			
13	DG/IND/92/402B	D	CFTC - Madras		1,158,259	601,259		338,500		218,500	
14	DG/IND/92/407C	D	IILP		615,081	230,581		210,500		174,000	
15	DG/IND/92/401A	D	CFTC - Agra		1,190,050	641,550		324,500		224,000	
16	DG/IND/92/404E	D	CLRI OUTPUT1-6		2,281,597	1,121,583		947,014		213,000	
17	DG/IND/92/405F	D	FDDI		1,515,673	751,057		407,916		356,700	
18	TF/KEN/93/001	A	Associate Exp. Nghia Quan Le		88,897	88,897					
19	US/KEN/88/100	G	Nat'l Hides + Skins, Leather + L.P.	421,742	22,058	22,058					
20	TF/KEN/91/003	C	Associate Expert J. Nishida	76,667	71,439	66,198		5,241			
21	US/MLW/88/100	F	Nat'l Hides + Skins, Leather + L.P.	398,372	77,628	77,628					
22	XP/MLW/93/200	A	NALFIS Equipment		18,000	18,000					
23	US/MOZ/86/276	E	Establ. of a Tannery in Tete	999,105	209,773	209,773					
24	DP/NYA/86/002	K	Development Centre for Rubber Technology	2,480,343	120,115	120,115					
25	DP/NIR/87/022	J	Leather Research Institute of Nigeria	720,246	96,451	96,451					
26	DP/PAK/89/025	G	Treat. of Tannery Wastes in Kasur	470,939	10,598	10,598					



## PROJECT IMPLEMENTATION FORECAST

## ANNEX 2 (continued)

IO/T/AGRO/Leather Unit

No.	Project No.	Rev	Project description	Prior years	Coming years	1993	1994	1995	1996	1997	1998
27	DP/PAK/89/027	H	Centre for Leather Finishing in Kasur	494,508	234,609	14,580	220,029				
28	US/RAF/92/200	B	RALFIS (Germany, Austria)		2,615,043	727,499	1,155,800	731,744			
29	US/RAF/91/194	C	Export Promotion (IPS)	115,909	36,604	36,604					
30	XP/RAF/93/200	A	RALFIS Study Tours		100,000	100,000					
31	US/RAF/88/102	H	Tannery Rehabilitation Scheme	3,964,234	18,067	18,067					
32	US/RAF/91/057	B	Ass. a l'industrie du cuir: Ph.II/070	203,381	177,619	177,619					
33	XP/RAF/93/062	A	Trng.Women from RAF Prog.at IND Prog.		36,500	36,500					
34	XA/RAF/93/603	A	REFAM Equipment		300,000	300,000					
35	US/RAF/88/100	J	Reg'l Hides + Skins Improvement Scheme	4,160,347	671,889	671,889					
36	XA/RAF/92/608	A	Assist. a l'industrie du cuir Ph.II	14,327	192,673	192,673					
37	XP/SUD/93/200	A	NALFIS Equipment		82,000	82,000					
38	US/SUD/88/100	G	Nat'l Hides + Skins, Leather + L.P.	285,817	69,783	69,783					
39	US/UGA/92/200	B	Nat'l Leather + Footwear Ind. Scheme		740,100	450,100	204,000	86,000			
40	US/URT/88/100	G	Nat'l Hides + Skins, Leather + L.P.	577,863	27,535	27,535					
41	US/URT/91/110	B	Extension Nat'l H+S project (URT/88/100)	137,658	437,342	420,201	17,141				
42	US/ZAM/88/100	H	Nat'l Hides + Skins, Leather + L.P.	514,227	53,776	53,776					
43	TF/ZIM/90/901	C	Associate Expert J. Hof	78,491	41,336	41,336					
44	US/ZIM/88/100	G	Nat'l Hides + Skins, Leather + L.P.	264,808	13,192	13,192					
45	US/ZIM/93/106	A	W-i-D Component of US/ZIM/92/200		152,000	123,500	28,500				
46	US/BOT/92/200	0	Nat'l Leather + Footwear Ind. Scheme		761,600	354,000	321,000	86,600			
47	US/COS/92/011	0	Eff.Treatment + Poll.Reduc.Technologies		566,000	0	349,000	217,000			
48	US/ETH/92/200	0	Nat'l Leather + Footwear Ind. Scheme		947,200	526,000	262,000	159,200			
49	UC/INT/93/054	0	Selection of Equip.f.Pollution Lab.		60,000	50,000	10,000				
50	US/KEN/92/200	0	Nat'l Leather + Footwear Ind. Scheme		623,600	377,200	148,800	97,600			
51	US/NLW/92/200	0	Nat'l. Leather + Footwear Ind. Scheme		608,897	291,000	225,797	92,100			
52	US/NAM/92/200	0	Nat'l Leather + Footwear Ind. Scheme		1,042,000	408,000	464,000	170,000			
53	US/RAF/92/200	0	Leather + Footw.Ind.Scheme (RALFIS)		3,048,917	1,263,130	913,388	482,399	390,000		
54	XA/RAF/93/XXX	0	PTA - LLPI		73,000	73,000					
55	US/RAF/92/202	0	Rehab. Finished Articles Manuf. (REFAM)		2,766,000	785,000	1,003,500	977,500			
56	US/SUD/92/200	0	Nat'l Leather + Footwear Ind. Scheme		746,600	387,000	272,000	87,600			
57	DP/SYR/92/004	0	Prep.Ass. Tannery Wastes Zablatani		430,000	248,000	182,000				
58	US/ZAM/92/200	0	Nat'l Leather + Footwear Ind. Scheme		604,200	252,600	198,500	133,100	20,000		
59	US/ZIM/92/200	0	Nat'l Leather + Footwear Ind. Scheme		472,700	284,100	120,000	68,600			
60	SF/BRA/92/XXX	1	Upgrd.SENAI Services for Footw.Ind.		546,000		300,000	246,000			
61	US/ECU/92/008	1	Ass. to ANCE, Improvent.Leather Quality		585,000	0	432,000	135,500	17,500		

## PROJECT IMPLEMENTATION FORECAST

## ANNEX 2 (continued)

IO/T/AGRO/Leather Unit

No.	Project No.	Rev	Project description	Prior years	Coming years	1993	1994	1995	1996	1997	1998
62	US/INS/92/120	1	Nat'l Poll.Control + Eff.Treatment		1,223,000	0	505,000	718,000	0		
63	US/NEP/92/120	1	Nat'l Poll.Control + Eff.Treatment		468,500	0	441,000	27,500			
64	DP/PAK/93/006	1	Poll.Contr.in Tanning Community KASUR		2,419,118	0	34,000	2,000,118	385,000		
65	US/RAS/92/120	1	Reg'l Poll.Control South-East Asia		1,426,000	0	662,000	764,000			
66	US/RLA/90/XXX	1	Foot Measurement + Shoe Component		345,000	0	345,000				
67	US/SRL/92/120	1	Nat'l Fac.Centre Tanning Op.+Eff.Treat.		1,020,500	0	848,000	172,500			
68	US/THA/92/120	1	Nat'l Common Fac. at Samut Prakarn		854,000	0	747,000	107,000	0		
69	US/BGD/92/120	2	Nat'l Eff.Treat.Plant Hazaribagh Area		2,172,100	0	0	1,271,500	694,300	206,300	
70	US/CPR/92/120	2	Nat'l Poll.Control + Eff.Treatment		2,228,000	0	0	1,129,000	969,000	130,000	
71	US/ECU/91/X05	2	Trng.Centre f.Export Footw./Zapateros		473,000	0	250,000	223,000			
72	DP/ETH/93/XXX	2	Prog. f. Leather+Allied Ind.Dev.		6,000,000		2,000,000	2,000,000	2,000,000		
73	US/PAK/92/120	2	Nat'l Eff.Treat.Plant at Korangi		483,000	0	0	33,000	450,000		
74	US/RAF/91/033	2	Leath.+L.P.Institute in PTA - Ph.I		2,019,800	0	944,600	792,800	222,400	60,000	
75	US/RAF/91/033	2	Leath.+L.P.Institute in PTA - Ph.II		2,053,850		0	991,050	1,062,800		
76	DP/RAS/91/XXX	2	Reg.Co-op.Network of Institutions.		3,068,200	0	1,244,800	1,186,400	637,000		
77	US/VIE/92/XXX	2	Assistance to the Footwear Ind.		2,461,750	0	223,650	416,100	1,000,000	822,000	
78		222			0						
79		222			0						
80		222			0						
81		222			0						
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