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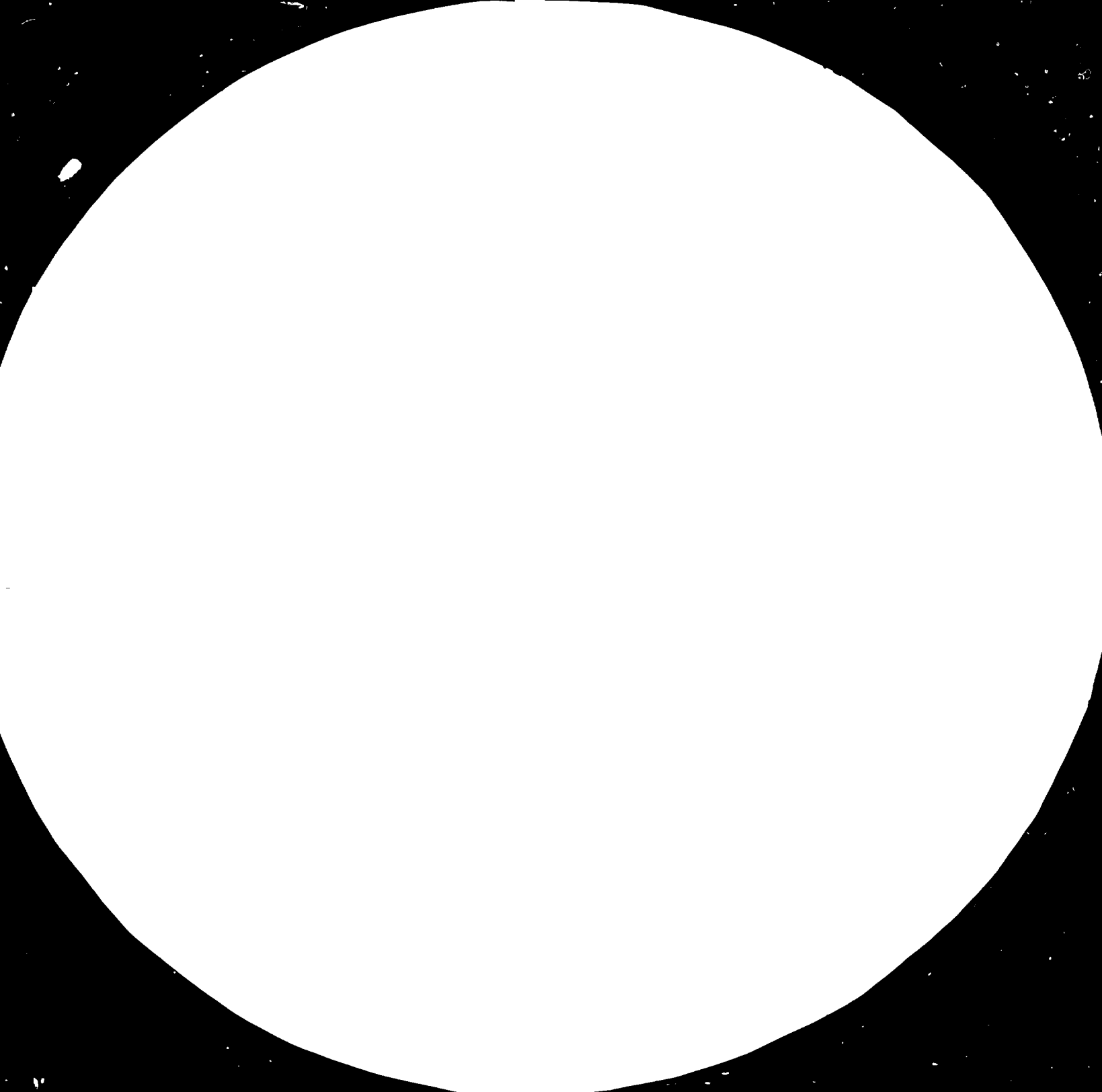
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INTEGRATED DEVELOPMENT OF THE LEATHER INDUSTRY SECTOR . /

UC/INS/83/017

INDONESIA

Mission Report \*

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

Based on the work of Magne Nestvold,  
leather industry consultant

2907

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Explanatory notes

Value of the Rupiah.

During the present mission the official value of the Indonesian currency was :

Approximately 1100 Rupiahs = 1 US dollar.

Abbreviations :

- BIPIK** : Bimbingan dan Penyuluhan Industri Kecil.  
( Guidance and Counseling for Small Scale Industries)
- BPPI** : Badan Penelitian dan Pengembangan Industri.  
( Agency for Industrial Research and Development )
- CSFS** : Common Service Facility Senter.
- FAO** : Food and Agriculture Organization of the United Nations.
- IRDLAI** : Institute for Research and Development of Leather and Allied Industries.
- ITC** : International Trade Centre, Geneva.
- MIE** : Mini Industrial Estate.
- PT** : Perserean Terbatas.  
( Limited Corporation)
- R & D** : Research and Development.
- TPL** : Tenaga Penyuluh Lapangan.  
( Industrial Extension Officer)
- UNDP** : United Nations Development Programme.
- UNIDO** : United Nations Industrial Development Organization.

Abstract

The present report corresponds to a mission by a UNIDO Leather industry consultant for a period of six weeks. The purpose of the project was to advise the Government on an integrated long-term development strategy in the field of leather and leather products industries with special emphasis on the small-scale industry. It included also the finalization of a draft project document for a new UNDP/UNIDO project to provide additional assistance to the IRDLAI.

The mission was carried out during the period from 18 February 1985 to 31 March 1985 under the UNIDO project UC/INS/83/017, Assistance to the IRDLAI.

The main recommendations are to :

- Improve the statistical data base for the entire leather sector.
- Take measures to gradually reduce the production of semi-processed leather from hides and skins, and further their utilization for more finished leathers.
- Intensify efforts to solve tannery effluent problems.
- Further specialization of the production at small-scale tanneries.
- Support local manufacture of certain types of tannery machinery and tannery chemicals, and also of essential components and auxiliaries for leather products.
- Investigate alternative ways of efficiently promoting the further sound development of the small-scale footwear industry.
- Promote export efforts through simplifying export procedures, arranging specialized domestic trade fairs and seeking the advice of experienced marketing experts.
- Ascertain Indonesia's active participation in the planned regional cooperation among Asian leather centres.

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### Introduction

Within the UNIDO project UC/INS/83/017, Assistance to the Institute for Research and Development of Leather and Allied Industries, IRDLAI, the Government of Indonesia requested the services of a UNIDO Leather industry consultant to carry out a six-weeks mission to Indonesia.

The purpose of this consultancy was to advise the Government on an integrated long-term development strategy in the field of leather and leather products industries with special emphasis on the small-scale industry. The duties of the consultant also included the finalisation of a draft project document for a new UNDP/UNIDO project entitled : Assistance in the development of new activities at the Institute for Research and Development of the Leather and Allied Industries (Consolidation Phase), for which project a UNDP contribution of US \$ 800,000 has been earmarked in the Country Programme for execution during the years 1986, 1987, and 1988.

The mission of the leather industry consultant started on 18 February 1985 and ended on 31 March 1985.

The detailed job description for this consultancy is presented in ANNEX I.



**I. ACTIVITIES.**

The activities of the consultant included a visit to all the various departments, laboratories and workshops at the IRDLAI, as well as to the IRDLAI pilot tannery at Gambiran, located at some 3 kms distance from the institute itself.

Visits were also made to the following small-scale industry areas :

The Manding leather goods cluster, with its CSFS, near Yogyakarta, The MIE at Maguwohardjo, Yogyakarta, with among others workshops for footwear and leather goods.

The MIE at Magetan, East Java, with CSFS for tanneries as well as for footwear and leather goods manufacturers located there. In this MIE are located : 29 tanneries and 9 products manufacturers.

The area of CIBADUYUT near Bandung, with its CSFS for a cluster having a total of some 600 footwear manufacturing entrepreneurs, as well as the MIE located just outside Bandung.

The area of GARUT, 60 km outside of Bandung, with its CSFS and a total of 158 entrepreneurs (tanneries), of which 40 also manufacture leather products, (footwear, leather garments, leather goods).

Visits were further made to a few medium-sized and large-scale factories, namely to : one large tannery in Yogyakarta, two medium-sized tanneries in Malang, East Java, one medium-sized and one large tannery in Surabaya, East Java and one large shoe factory in Bandung, West Java.

Further, visits to the Government regional offices dealing with industrial development, in Surabaya (East Java) and in Bandung (West Java) were also made, and discussions held with leading representatives of these offices. In Jakarta a visit to the AIRD took place.

The consultant's direct counterpart, Mr. Zainery, Project Officer IRDLAI, accompanied the consultant on all these visits.

During the visits to Manding, as well as to Magetan, Malang and Surabaya, the Director of IRDLAI, Mr. Keentere, also accompanied the consultant.

Mr. Alip. SE, Project Administration Adviser IRDLAI, participated in the consultant's visits in the Bandung area.

Short visits to the UNDP office in Jakarta were made at the beginning of the consultant's mission as well as at the end of his stay in Indonesia.

During the first part of his mission the consultant, in consultation with the Director of IEDLAI, prepared a detailed draft project document for the new UNDP / UNIDO project to assist IEDLAI foreseen in the Country Programme for the years 1986 - 1988.

The UNIDO SIDFA, Mr. NARASIMHAN, informed the consultant that the budgetary frame for this project was given as follows :

Total UNDP contribution : US \$ 800,000 with yearly ceilings as follows:

1986 - US \$ 300,000

1987 - US \$ 300,000

1988 - US \$ 200,000

The finalized draft project document, which is in conformity with this budgetary frame and which is self-explanatory, is attached as ANNEX II to this report.

## II. FINDINGS AND SUGGESTIONS.

The recommendations put forward by the consultant regarding the further development of the various sub-sectors within the leather and allied industries in Indonesia have to be considered taking into account the very limited time available on this mission. A detailed and thorough study of the situation within this industrial sector could not be carried out during the six weeks actually available.

The assessment of the industry has been made based on the impressions gained during visits to a few selected large and medium-sized factories and to a number of small-scale industry units in the various subsectors as well as to CSFS's and MIE's in certain areas. These impressions were complemented through discussions with Government officials concerned. Statistical data available to the consultant were in some cases incomplete and not sufficiently up-to-date. Available data taken from various UNIDO documents and from FAO statistics were, therefore, utilized where appropriate.

The recommendations presented are also to a certain extent based on the experience of the consultant gained dealing with development aspects within the leather industry sector in UNIDO and in certain developing countries where the leather sector has reached <sup>a development</sup> stage, comparable to that existing in Indonesia.

A. Raw materials, hides and skins.

No facilities for slaughter and consequently also no hides and skins production units were visited during this mission. Raw hides and skins could be observed only in the raw material storerooms of the few tanneries visited.

The consultant, therefore, has not been able to assess the general quality level of various types of hides and skins in Indonesia. Reference is, however, made to the report entitled :

Flaying and preparation of hides and skins, by T.J. Johnson, expert under the project DP/INS/78/001, which presents detailed information about the raw material situation especially in Bali and in Timor.

Some general comments on this subject can be given, as follows :  
On-going activities in various parts of the country concerning the improvement of raw hides and skins should be continued and, if possible , intensified , in order to make the optimum use of these valuable raw materials, and ensure their proper collection and utilization.

A sufficiently marked price difference between the different quality selections of raw cattle hides in particular is a further stimulating factor to obtain good quality hides. This practice seems to be the rule in most parts of the country, and it contributes to making the primary producers of the hides economically interested in producing as good hide quality as possible, bad quality hides fetching a lower price than good quality hides.

The statistical data concerning the production of hides and skins in Indonesia are, however, incomplete and evidently not accurate , especially when it concerns skins of sheep and goats. In order to ascertain a better statistical data base, particularly useful for planning purposes, it is strongly recommended that appropriate measures are considered to improve this situation significantly.

Export of raw hides and skins from Indonesia is banned since 1974.

The possibility of allowing import of cattle hides should, however, be given serious consideration, in view of the expected decreasing availability of raw cattle hides per capita in the country and the increased needs foreseen for bovine leather of the footwear manufacturing industry.

One alternative might be to allow import of raw hides to those factories which are producing semi-processed leather for export purposes. The expected influence on the price level of domestic raw hides must, however, be given very careful consideration before a decision on this matter is taken.

B. The tanning industry.

Present situation.

The number of large, medium-sized and small-scale tanneries existing in Indonesia, in 1982, is given in Annex VII.

The number of large and medium-sized factories has probably not changed since then although a further development and a production increase have occurred at various of the existing tanneries. The number of small-scale tanneries has, however, increased in the last few years, especially noticeable in the Garut area, for instance, and the activities within this sector has expanded considerably.

Many of the tanneries, both medium-sized ones and small-scale units, have completely changed their production line. Previously, they used to produce mainly vegetable tanned sole leather. Today they are producing mainly chrome-tanned upper leather from cattle hides, and also in several cases additionally chrome-tanned skin leather, and only limited amounts of vegetable tanned sole leather. Annex VI shows the reported decrease in vegetable tanned leather during the last decade or so.

In view of the fact that the export of raw hides and skins from Indonesia is banned, since 1974, it must be assumed that practically the total domestic production of ~~bevine hides, sheepskins and goatskins~~ <sup>(tanneries. There is still a sizeable production)</sup> and other raw materials available, are processed by existing, of pickled skins, but all the other raw materials are processed into semi-processed hides and skins, for export, or finished leather for domestic consumption.

The total annual availability of raw hides and skins in 1982 was estimated at ( ANNEX III)

1,1 million bevine hides  
2,4 million sheepskins, and  
4,2 million goatskins.

Up-to-date production figures for various types of leather, (wet-blue, crust, or finished) are, however, not available. The figures presented in Annex VI (for 1982) seem to be realistic when it refers to leather from bevine hides, but they are definitely too low with respect to leather from sheepskins and goatskins.

The large tanneries and most of the medium-sized factories are well equipped with all types of the machinery and equipment nowadays used in leather manufacturing. That part of the production which appears to require to be further developed, through more mechanization and improved techniques, is evidently the leather finishing department. Several tanneries have, however, already <sup>installed</sup> such specialized equipment, and others are planning to do so.

The assistance foreseen under the new UNDP/UNIDO project is aiming at contributing significantly towards improving the leather finishing techniques used.

The small-scale tanneries, in Garut and in Magetan, are extensively making use of the installations available at the respective CSFS', where additional equipment for leather finishing is expected to be installed in the not too distant future.

#### Environmental considerations.

This is a problem of increasing concern to the Government authorities concerned as well as to the tanning industry itself, at all scales. It is particularly important to find practical and economic methods of treating and purifying the waste waters from the tanneries, as they almost all of them are located in densely populated areas.

Some of the large and medium-sized tanneries have already installed effluent treatment plants and have been able to control the contamination of the environment. Other plants are being installed. However, there are a number of factories, particularly in the small-scale industry sector, where such treatment is still non-existent.

Particularly acute seems the situation in the Garut area to be, where the authorities even are considering the possibility of moving the whole cluster of small tanneries (158 in all) to another location. The consultant is, however, of the opinion that these tanneries should remain where they are now, and where they have developed into a very active tanning community. The best solution would in the consultant's opinion be to install an efficient effluent treatment plant common for the whole Garut area, and meeting the ...

environmental requirements which must be respected.

The services of an expert in the treatment of tannery effluents is foreseen under the new assistance project, and it is expected that this expert will specifically carry out a study on the establishment of such effluent treatment plant at Garut.

#### Development perspectives.

There appears to be a definite trend towards using bovine hides increasingly for the production of upper leather for footwear, while the decreasing trend in the production of vegetable tanned bovine sole leather may be expected to stabilize at a certain lower level. Due to the expected increased demand for shoe upper leather it would be logical to use the bovine hides available domestically to the greatest extent possible for the production of fully finished leathers. It would, therefore, be advisable to reduce considerably, and ultimately to eliminate, the present production of semi-processed hide leather for export based on domestically produced hides.

The present sizeable production of pickled skins and wet-blue leathers from sheepskins and goatskins for export purposes, should also gradually be reduced and in due time eliminated. Instead the production of crust skin leathers, for export, and the production of finished leathers, or the local production of suitable leather products (gloves, garments, etc) should be intensified. This would be in line with the strategy to obtain as much added value as possible to these valuable raw materials, which are available in significant quantities and of good quality, and also with the requirement to create additional employment opportunities for the increasing population.

The Government should consider taking appropriate measures which will further a development as suggested above.

#### Further comments.

The production, in Indonesia, of certain specific types of tannery machinery, as initiated through IRDLAI, should be given adequate support, in order to gradually make the tanning industry less dependant on imports of such machinery. Import of very specialized parts for such machinery should be facilitated when they are needed



to complete new machinery locally constructed and manufactured.

A great part of the tanning chemicals used in this industry are still imported, except certain less sophisticated products which are domestically produced. Consideration should be given to an increased local production of some other chemicals for tanning and leather manufacture. Possible co-operation with specialized foreign firms in establishing such new production units should be carefully considered, to take advantage of their advanced technological know-how in this respect. It is, however, expected that the more sophisticated chemicals, in particular those used in leather finishing, will still continue to be imported.

For the small-scale tanneries, for instance in the Garut area, it would be of value to consider obtaining a development leading to a more specialized production in the various units. Some could specialize in the skin leather production (for garments etc), others in shoe upper leathers for footwear, and a few in split leathers.

C. The footwear industry.

Present situation.

Annex VII shows that the Indonesian footwear industry is of a considerable size, including 38 larger factories and a great number of medium-sized and particularly small-scale manufacturing units. The total work-force is estimated at approximately 30,000 persons.

The large factories are mechanized units, which are using modern production techniques, while most of the medium-sized units and all the small-scale units are still using highly labour-intensive production methods, with only a minimum of mechanization.

The total footwear production in the country, in 1982, was estimated at some 90 million pairs of all types of footwear, the leather footwear production being estimated at approximately 27 million pairs.

It is probable that both these figures have increased during the last few years, but up-to-date data on the present footwear production are not available.

As to the necessary components and auxiliaries for footwear manufacture the main part of these items used in the footwear industry is manufactured in Indonesia, although the quality of some of these components is not up to the quality standard desired. Certain such items are, therefore, imported, especially in those cases when they are to be used in products which are intended for export.

Development perspectives.

The footwear industry in Indonesia appears to have good prospects for expansion and further development, in view of the rapidly increasing population and the steadily improving standard of life in the country, which factors are both considered to also result in a considerable increased domestic demand for footwear. It is to be assumed that this increase will have a greater impact on the non-leather footwear production than on the production of leather footwear, although also the demand for the leather type

is expected to increase, probably, however, at a lower increase rate than for total footwear production.

The population of Indonesia in 1981 was, according to FAO statistics, slightly more than 150 million inhabitants. With an estimated average annual increase rate of 2,3 per cent, it is anticipated that by the year 2,000 this figure will have reached the level of approximately 215 millions

Using the footwear consumption per capita figures indicated in Mr. Helleweg's report under project DP/INS/78/001, of 0,2 pairs for leather footwear and of 0,6 pairs for footwear of all types, the consumption figures for the year 2000 would be expected to be as shown in the following table :

	<u>Population</u> (in million inhabitants)	<u>Consumption of</u> leather footwear (million pairs)	footwear, all types (million pairs)
1981	150	30	90
2000	215	43	129
Increase expected :	65	13	39

With the steadily improved standard of life in Indonesia it is to be expected that the per capita consumption of footwear will increase. Especially the consumption of footwear of all types is expected to increase significantly, so that the figures calculated would represent the minimum quantities expected.

This development perspective alone constitutes a great challenge to the entire footwear industry for further developing its activities. In addition comes the possibility of increased export of different types of footwear.

The large and some of the best equipped medium-sized footwear factories are definitely in a position to export part of their production.

Some factories are already successfully exporting certain types of footwear. This group of factories will also be able, through licence agreements, or other forms of cooperation with specialized companies in industrialized countries, to take advantage of some of the technological innovations which have taken place, and which certainly will be further developed, in more industrialized countries. Due consideration will, however, have to be taken to the availability of relatively cheap labour in Indonesia and their optimum employment.

The less mechanized medium-sized factories and particularly the small-scale units, however, will most probably not be in a position to follow this development trend, unless an efficient cooperation between larger and smaller units can be established. The small-scale units base their activity on the intensive utilization of labour for non-mechanized operations which are prevailing in their production units. The employment pressure will not permit them to change significantly their way of operating, although a gradual mechanization is expected to take place in some essential manufacturing operations.

Co-operation among various small-scale entrepreneurs in the production of footwear is taking place in certain areas, especially when it comes to meeting the delivery deadlines of larger orders, which can not be handled by one manufacturer alone. This co-operation should be intensified and further developed, to the benefit of those participating in it.

Marketing appears to be a problem for many of the small-scale footwear entrepreneurs. One way or other of cooperative action may be considered to alliviate this situation.

#### The role of CSFS' and MIE's.

Efforts to continually increase the capacities and capabilities of CSFS' to assist efficiently the small-scale footwear industry entrepreneurs should be strongly supported. The activities carried out so far by these specialized centres have certainly been of great help to this sector, particularly through their training programmes.

It was observed, however, during visits to various small-scale industry areas, that as a group it appeared that footwear manufacturers were those who made less use of the facilities available and the assistance offered at CSFS' and MIE's. It was evident that as a group the tanners used these services much more intensely. Also the leather goods manufacturers seemed to find them of great help.

There are certainly valid reasons for this attitude of the small-scale footwear manufacturers. To find out how best this group can be assisted in their further development it is, therefore, recommended to carry out an investigation, directly approaching a selected number of small-scale footwear entrepreneurs, in the various areas concerned, to ascertain their views on what measures, in their opinion, should be considered to improve their situation. Based on such direct evaluation it would be possible to consider introducing other efficient measures in addition to the services now offered through the CSFS' and the MIE's.

D. Leather goods industry.

Present situation. The survey of the leather industry sector carried out under project DP/INS/'78/001, estimated that by 1982 there existed 279 medium-sized and 616 small-scale units manufacturing different types of leather goods (including leather garment). No large scale manufacturers specialized in leather goods manufacture existed. However, some of the large skin leather tanneries have relatively large departments manufacturing leather gloves (mainly golf gloves) for export. These can be considered as large scale units producing leather products.

The number of medium-sized and small-scale units has most probably increased in the last three years. No precise data are, however, available on the actual number of leather goods manufacturing units existing now.

In 1982 it was estimated that a total of 8,600 persons were employed in this industry. This figure may also have increased since then but relevant data are not available.

The volume of the total production is extremely difficult to establish, due to the great diversity of leather products manufactured, as to types, sizes, etc. The most practical approach to obtain information on the magnitude of such productions appear to be to assess the value of the products manufactured.

In a few cases such data could be obtained, but information on the total value of leather products manufactured in Indonesia could not be obtained by the consultant.

value of leather products amounted to  
Annex VIII a) indicates that in 1981 the export 2,1 million US \$. It does not seem, however, that the value of leather gloves exported is included in this figure. The present production of leather gloves for export is very significant. It is estimated that their export value represents at least 10 million US \$, or maybe even more. It would be of considerable interest to have the actual figures for this item verified.

Annex IX shows that, in 1981, the import of leather products amounted to 5,3 million US \$, which is a relatively high amount.

Development perspectives.

From the impressions gained during visits to a number of leather goods manufacturing units, mainly small-scale ones, it seems that this

.....

sub-sector has a good potential for further development, including possibilities for export of selected products, when certain essential conditions and requirements can be met.

Through the activities carried out by the CSFS's, by the one in Manding for instance, a certain degree of mechanization of some of the basic manufacturing processes has been obtained. In some enterprises, particularly those manufacturing leather garments, the number of sewing machines utilized was noticeable.

It is recommended that this trend towards mechanizing the basic operations be followed-up and further developed, in order that a more uniform quality of the products manufactured can be ensured. This will be of increasing importance <sup>in</sup> the future, for those articles which are aimed at meeting the demands of the tourist trade and especially for those articles which are intended for export. The limited production capacity of each small-scale unit may create problems when it comes to export, because of the relatively sizeable volumes usually involved.

A co-ordination of the production among several manufacturing units, which is in fact practiced in some cases, may be necessary and should be further developed,

There exists a relatively high degree of specialization and good co-operation among various entrepreneurs, in specific areas. Specialized workshops carry out the ornamentation work on the leathers, or the batik work on more sophisticated leather articles, as a kind of service work for those entrepreneurs assembling the finished products. This is a way of operating which is of great interest, and which with benefit could be developed even further.

Under the new assistance project to IRDLAI the services of a leather goods expert is foreseen, for a period of six months. He will assist in various aspects of such manufacture, with emphasis on the production of articles suitable for export. He is expected to particularly assist the small-scale and handicraft sector.

## B. Comments on export markets and export marketing.

### Introduction.

A considerable number of Indonesian companies have been very actively involved, during the past decade, in the export of leather and various leather products. Particularly significant have been the exports of pickled, wet-blue and partly also crust leathers from sheepskins and goatskins, as well as leather gloves (especially gulf gloves) in very sizeable quantities.

These companies, therefore, have gained considerable experience in export marketing and in the knowledge of the peculiarities of the different importing markets. They have also, in many cases, actively participated in various important specialized trade fairs in different parts of the world.

Due to rapidly changing market requirements and conditions, however, it is always important to keep up-to-date on developments and new trends in the export trade. New entrants into the export markets can build on the experience gained by the already well established exporters and take advantage of the market image created by them.

### General considerations :

#### World import markets for leather and leather products.

Annex X presents an orientation on the magnitude of world imports of leather and leather products, broken down in major importing regions. The figures presented should be considered as magnitude estimates only.

Western Europe is by far the most important import market area, for leather as well as for leather footwear and other leather products. The markets of the USA and of Eastern Europe + USSR are of similar magnitudes, and each reaching approximately 30 per cent of the values for Western Europe.

The Western European market area has a total leather consumption of some 3,000 million square feet, with an import demand which is significantly high, namely approximately 35 % of the total consumption.



The import demand for leather footwear is also significant, and that of leather products as well.

It can be assumed that a possibly increased export of semi-processed and finished leather, and possibly also of leather footwear and other leather products, from Indonesia, could be absorbed in this market area, provided the quality and regularity requirements are met and the prices are in accordance with the prevailing conditions of this market area.

#### The market in the USA.

Market for leathers. With particular reference to the export of leather and leather products to the USA, it should be noted that tanners in the USA need sheep and goat in raw, pickle, wet-blue or crust stage because there is a deficiency in the country itself for these types of raw materials or leathers. There is less interest for wet-blue or crust cattlehide leathers, unless they are available at prices which are sufficiently below the cost of production of US hide leathers.

Exporting finished leather is a more difficult matter. At the finished leather stage there has to be direct communication between the producer of the leather and the manufacturer of leather products. In many respects it is the most difficult stage of manufacturing at which to export. Style, tradition, methods of product manufacturing and other factors must be accounted for in a successful export program. The size of the import market in the USA, in 1982, for different categories of leather, is shown in Annex XI.

#### Market for different leather products.

The greatest opportunities for sales and profits seem to lie in this broad area of products, (leather footwear and various components for footwear, including ready made leather uppers, gloves, golf gloves, baseball gloves, handbags, purses, luggages, saddlery, garments, etc.).

The approach to the export marketing of leather products is, however, different from that for semi-processed or finished leathers. The volumes involved usually are more limited due to the great variety of articles, colours and specific market requirements.

For bulk exports only the medium and larger scale manufacturers seem to have prospects of succeeding in obtaining continuous exports. The small-scale producers have only limited capacity to meet the relatively stringent requirements as to styles, colours, work quality, delivery time and prices offered. Therefore, to succeed they may find it necessary to join efforts and produce in a coordinated manner to be able to deliver as required, in volume as well as in quality.

The size of the import market in the USA, in 1982, for various types of leather products, is shown in Annex XII.

With particular reference to the USA market, it should also be noted that there are essentially two types of export marketing being practised, namely so-called conventional marketing and the unconventional marketing.

#### Conventional marketing.

The bulk of the imported leather products that are sold in the USA are actually substitutes for products which used to be made or which still continue to be made in the USA but in volume which are not sufficient to satisfy market demands.

Essentially these products are copies or modifications of accepted styles which can be sold in large volume through mass merchandising outlets. It is usually only after several ordershipment cycles that a producer in a developing country becomes knowledgeable enough to approach new customers on his own, and not any more through import agents, and may be even to set up a selling organization in the USA.

The paths of success for exporters to the USA differ somewhat according to the type of product, the way the specific sub-sector of the industry is organized and the merchandising methodology in the USA. Opportunities for exporting the major leather products, footwear, wearing apparel, handbags and some other products are relatively favorable. However, there are several disadvantages, too. Usually the scale of production required is large, and furthermore almost every product which is traded internationally in large volume requires a relatively large amount of imported content. This requirement works against the objective of gaining foreign exchange through export.

Unconventional marketing.

The important factors to take into account when planning market strategies are size, effluence and diversity of the markets. There exist possible avenues of exporting in relatively small volumes which can be profitable and which can contribute to the earning of foreign currency.

There is a comparatively large market for ethnic merchandise in the USA. There are often concentrations of immigrants or second generation immigrants from a particular homeland, where there are shops which specialize in serving this population with ethnic products of various types, including also leather goods from that home country. These shops may be interested in importing such typical leather goods if they are approached properly.

Speciality shops and hobby-craft stores are two further types of retail establishments which are potential customers for specialized leather goods from developing countries.

Although these unconventional methods of merchandising to the large market in the USA require less capital and less sophisticated manufacturing methods, they are not without problems. Generally they require warehousing facilities and distribution personnel in the USA which involve certain costs, and there are also costs involved in reaching the retailers.

Most of the wholesale buying for retail outlets, such as speciality stores, is done during big trade exhibitions held around the country, where sales representatives display sample products for a great number of buyers. If leather product manufacturers in developing countries want to reach these markets they must be willing to bear the expense of participation in such trade exhibitions.

Target customers :

When considering export marketing of various types of leather (semi-processed and finished) and of leather products (footwear, leather-goods, gloves, garments, etc), it is most important to always keep in mind who are the customers directly concerned in each case.

Customers for raw hides and skins, pickled pelts, wet-blue and semi-finished or crust leathers are tanners (finishers included).

Customers for finished leathers are the manufacturers of different leather products.

Customers for leather products are retailers or retailing organizations. In order to merchandise successfully it is important to be clear about these facts and to understand the differences between the demand of these three groups of customers.

Specific suggestions :

- 1). The strategy recommended to be taken by firms which aim at entering the world export market for wet-blue, crust, finished leather and also various types of leather products must be to capitalize on the already existing image and market penetration created by Indonesian firms which have already successfully been actively engaged in export business to various market areas, Japan, USA, Western Europe, Australia., South East Asia etc. ( Annex VIII b )

Initially it is suggested that potential new exporters utilize the market expertise available through import agents who are well established and who are familiar with the trade in their respective target area, as well as with the specific requirements of the individual buyers.

When the new exporter has been able to achieve a suitable market image, after a few years of experience, increased revenue for the exporter would be obtained by direct sales to end-users, based on the experience gained and the contacts established during the initial years of export activities.

- 2). A major reason for the relatively depressed prices frequently obtained by exporters of different kinds of leather, is the long delay occurring between the time when the order is placed and the time when the products are actually received by the buyer. The importers, which by experience are fearing a falling market, will therefore offer only a discounted price. To help overcome this situation it is essential to consider using air freight of the products exported, or to develop a mechanism whereby leathers may be held on consignment in the market area and sold off the shelf at ruling prices.

A certain practical co-operation between various exporters would facilitate the creation of such holding facilities in potential market areas. Government export promotion agencies should continue their support to exporters in order to facilitate such cooperative market function.

- 3) To further improve the image of Indonesian exporters it is recommended to implement positive publicity programs, including the following :

The publishing by reputed international, wide-spread technical and marketing journals of country summaries and company profiles describing the capacities and specific types of products manufactured by individual companies and by the leather industry sector of the country in general. The journals concerned can easily<sup>be</sup> approached to ascertain their interest in publishing such material and the conditions to be fulfilled relative thereto. Such publicity may be combined with work preparatory to the participation in international or regional trade fairs and exhibitions .

- 4) Joint ventures with specialized companies in industrialized countries, with the particular aim of obtaining easier access to certain foreign markets is also a possibility to be taken into serious consideration.

- 5) The example of the Brazilian footwear industry, which has been very successful on export markets, should be carefully studied and similar actions considered.

The footwear industry in Brazil has developed its own marketing institutions which are very effective.

Trade fairs are held in Brazil to which foreign buyers are invited, and close co-operation is thereby built up between the importers and the manufacturers.

In high fashion markets, the Brazilian footwear industry is able to offer quality, design and styling up to Italian and Spanish standards, but often at a considerable price advantage because of lower costs ( especially on labour ).

However, the importance of government policies in helping the industry must not be underrated. ( Annex XIV, item 13 refers ).

It is, therefore, suggested that the possibility of holding specialized fairs or exhibitions, embracing all sub-sectors of the leather and allied industries, in main centres in Indonesia ( Jakarta, Surabaya, and others ) be carefully taken into consideration. This will contribute towards facilitating closer contacts between importers and manufacturers, and would be an efficient way of promoting export efforts.

- 6) The simplification of time-consuming bureaucratic procedures involved in export business should be aimed at, in order to facilitate and encourage exports, where the factor time is of utmost importance.
- 7) It is further suggested that the Government consider approaching the International Trade Centre, ITC, in Geneva, requesting the services of marketing specialists with extensive experience and up-to-date knowledge of the trade in leather and leather products, to carry out detailed market studies of the most important target markets for Indonesian exporters. The up-to-date information thereby obtained should be made available to interested parties, enabling exporters to make use of the advice and guidelines given for their own specific case.

## F. Training and research activities

### Present situation.

Training of personnel for the leather industry sector is carried out at the IRDLAI and also at the Academy of Leather Technology, both located in Yogyakarta.

The IRDLAI carries out a number of mainly short-term and practice-orientated training courses in different areas of specialization, like tanning technology, maintenance of machinery, chemical and physical testing of leather and of tannery chemicals as well as in footwear manufacture, leathergoods manufacture and in fashion and design for these industries. Specific courses on other subjects of interest are also held. These courses are mainly directed towards the small-scale industrial units, but include also the medium-sized units within the leather and leather products industries, and are usually financed through BIPIK.

IRDLAI has experienced instructors in the various fields in which training is provided. Adequate training facilities and suitable training equipment is available at the IRDLAI. The equipment has been provided by the Government or by UNDP/UNIDO or through bilateral assistance programmes.

The Academy of Leather Technology runs long-term training courses, of three years duration and at Bachelor of Science level, in tanning chemistry and tanning technology.

### Future activities suggested.

The training programmes mentioned should be continued and, wherever possible, be intensified, in order to meet the increasing requirements of the industry for trained personnel at various levels, and also ensure that the training given results in gradually increasing levels of skill and specialized knowledge.

Training in new areas of specialization, like rubber technology, plastics technology and simulated leather technology, should be taken up as and when the expertise at the IRDLAI has reached the level required and the specialized equipment needed is available, in order to provide appropriate training of specialists for these specific industrial areas too.

Courses to up-date and further develop the specialized knowledge of TPL's working in CSFS and MIN's should be considered by IRLAI, in the fields of tannery technology (including effluent treatment), in footwear technology and in leather goods technology.

Training abroad of specialists from IRLAI and from the industry has taken place in a number of cases, under multinational or bilateral training programmes, in Europe, Japan and elsewhere, mainly, however, for relatively short periods of time.

These activities need also to be continued, and, provided relevant sources of financing such training programme can be identified, even be intensified, in order for Indonesian specialists in the various sub-sectors of the leather and allied industries to be able to keep up-to-date on technological and organizational developments which are taking place in the more industrialized countries.

Concerning applied research programmes at IRLAI, the new UNDP/UNIDO technical assistance project for IRLAI, now under preparation, will be actively assisting in the following specific areas :

- Dyeing and finishing of leather
- domestic manufacture and development of simulated leather materials, as well as of certain rubber and plastic products to be domestically manufactured for use in the leather products industries (footwear, leather goods, etc).

The planned project will strengthen the institute's capabilities to carry out further research and development activities in these and related specialised fields, thereby contributing to the building up of IRLAI's capacity to assist the industries concerned with the manufacture and use of such products.

The optimum utilization of existing information and documentation on research results and development work done at the other institutes and centres, in different industrialized and also in developing countries, should be aimed at.

The <sup>new</sup> assistance project includes the services of a specialist in documentation and information for the leather and allied industries for a period of two months. This is expected to contribute towards reaching this target indicated.



The establishment of closer links directly with research and development specialists in other countries should be systematically promoted and encouraged.

Regional co-operation.

One important aspect which should specifically be taken into serious consideration is the promotion of cooperation among leather and leather products centres in the South-East Asia and Pacific Region, in the fields of industrial training as well as of applied research.

The paramount importance of acquiring necessary skills at different levels in the leather and leather products industry has been recognized by many countries in this region. Many of them have adopted various measures to secure the expertise needed and increase the local know-how through the establishment of national training and research centres for the leather sector. Depending on the prevailing condition in the respective country, these centres have concentrated their activities on the development of a particular subsector of the leather and leather products industry, the tanning industry principally or the footwear industry.

Yet, all these centres have one common feature : a great deal of their activities focus on the manpower development in order to provide the industry with a well trained workforce so badly needed, from the operative up to the managerial level.

Although significant progress has been made in this field, there is still room for further development.

Some of the centres in this region are still not in a position to render remunerable extension services to the industry, which would provide the funds required to carry out more intensive training programmes as well as to send their training instructors for advanced specialized training to similar centres with long tradition and recognised reputation in industrialized countries.

Because of these conditions, the centres very often have no choice but to adapt their syllabi and compromise on important academic standards.

On the other hand, in many cases there is no need to start and maintain training activities at all levels and for all subsectors of the leather and leather products industry in each particular country. Instead, the optimum utilization of existing facilities of a high standard in the relevant fields of training and research in one or two of the countries of the same region is certainly a solution which would result in significantly upgraded training possibilities, thus benefitting all countries participating in such practical regional cooperation.

This would also contribute towards the aim of reaching greater uniformity of the scopes, contents and standards of training courses for the entire leather sector throughout the whole region of South-East Asia and the Pacific. A closer cooperation in research, through exchange of fellowship, for trainees and for instructors, and through the carrying out of common workshops and seminars would lead to substantial results of such regional approach.

In fact UNDP and UNIDO are actually very actively involved in preparing a preparatory project, entitled : " Promotion of cooperation among leather and leather products centres in South-East Asia and Pacific Region ". The chances for obtaining the approval of the relevant funds from UNDP regional funds seem promising.

The purpose of this preparatory project would be to initiate activities leading to the establishment of a " network " of leather and leather products centres in this specific region with the following long-term development objectives :

- to strengthen the capabilities of the leather and leather products industry of the region by up-grading the existing training and testing facilities,
- to assist the leather industrial sector in the transfer of technology and in the better utilization of the indigenous raw materials available,

- to increase the region's share in the supply of leather and of manufactured leather goods to the world market, thereby also creating additional employment opportunities ,
- to extend and foster the regional co-operation between countries of the region in the area of leather and leather products industries.

It is believed that a gradual approach in establishing closer links among centres in the region will have the best chances to lead to the results expected. The first steps to be taken would be :

- to standardize to a maximum extent the curricula at the various training centres in order to preserve high academic criteria and facilitate the exchange of students, lecturers and researchers.
- to upgrade and optimize the utilization of training facilities in some of the centres of the region enabling them to serve as training and research centres of a high standard serving the whole region.

The leather and / or leather products centres to be involved in the proposed " net-work " would be the centres existing in :  
Calcutta (India), Colombo (Sri Lanka), Dhaka (Bangladesh), Karachi (Pakistan), Kathmandu (Nepal), Madras (India), Manila (Phillipines), Shanghai (China), Yogyakarta (Indonesia).

It is , therefore, strongly recommended that the Government of Indonesia and the IEDLAI in Yogyakarta consider participating very actively in this proposed " network " for regional cooperation.

G. New assistance project , summary.

The new UNDP/UNIDO project entitled " Assistance in the development of new activities at the Institute for Research and Development of Leather and Allied Industries (Consolidation Phase) ", the draft project document for which is attached as Annex II to this report, is proposed to start in April 1986, for a period of two years and six months, and with a total UNDP contribution of US \$ 800,000.

The proposed project include the following expert services :

Leather finishing expert ( International Team Leader )	Duration : 30 months.
Expert in treatment of tannery effluents	2 months.
Expert in documentation and information	2 months.
Expert in tannery machinery	3 months.
Expert in manufacture of simulated leather	6 months.
Expert in leather goods	6 months.
Expert in plastics products	3 months.
Expert in rubber products	3 months.

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The training component amounts to US \$ 65,400

and the equipment component to US \$ 228,000.

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### III. RECOMMENDATIONS

Annex II describes in detail the various specific activities foreseen under the new UNDP/UNIDO assistance project. These are, therefore, not repeated here.

Additional recommendations are the following :

- 1). It is strongly recommended that appropriate measures be considered to improve and keep up-to-date the statistical data for the entire leather sector, including production figures concerning raw materials, various types of leather, footwear and different leather products, as well as the relevant export-import data, to permit the timely assessment of new development trends and facilitate appropriate corrective actions, if required.
- 2). In view of the expected decreasing availability of bovine hides per capita in the country and the increased needs foreseen for bovine leather for footwear manufacture, the possibility of allowing import of bovine hides for certain specific purposes should be given serious consideration.
- 3). Appropriate measures should be taken which would aim at reducing the production of semi-processed leather from domestically available bovine hides and instead further their processing into fully finished leather.
- 4). Appropriate measures should also be taken aiming at reducing the production of pickled and wet-blue tanned sheepskins and goatskins, and instead further their production into crust leather, for export, and finished leather for increased local manufacture of leather products (gloves, garments, etc).
- 5). It is recommended to intensify the efforts being undertaken to find satisfactory solutions to the important tannery effluent problems, including carrying out a specific study for the establishment, at Garut, of a common effluent treatment plant ( also as a model for other areas ).
- 6). For small-scale tanneries, for instance in the Garut area , a development leading to a more specialized production in the various units should be promoted and supported.

- 7). The local manufacture of certain specific types of tannery machinery should be given adequate support, in order to gradually make the tanning industry less dependant on imports of such machinery.
- 8). Consideration should be given to increasing and improving local production of chemicals for tanning and leather manufacture, including taking up the production of additional products which are not locally manufactured at present.
- 9). It is suggested to carry out an investigation, directly approaching a selected number of small-scale footwear manufacturers, to identify possible alternative ways of efficiently promoting the further sound development of this important sub-sector, in organizational, technological and also in marketing aspects of their activities.
- 10). In order to increasingly substitute imports of essential components and auxiliaries for the footwear and leather goods industries, the improvement of the quality of locally manufactured such items and the further diversification thereof, should be aimed at.
- 11). It is advisable to promote and support further co-operation, and also the specialization among small-scale leather goods manufacturing units, particularly when production for export is involved.
- 12). It is recommended to adopt suitable measures that will bring with them the desired simplification of export procedures, in order to encourage increased export efforts and facilitate timely delivery of export products.
- 13). Consider arranging regular domestic trade fairs specialized in the leather and leather products industries in main cities in Indonesia, to facilitate and promote the direct contact between buyers and manufacturers, covering both the domestic and export markets.
- 14). The possibility of requesting, through the International Trade Center, the services of marketing experts, with extensive experience and up-to-date knowledge of the leather and leather products trade, should be carefully investigated, with .....

the aim of obtaining detailed and up-to-date information and orientation about important export target markets for Indonesian leather and leather products.

- 15) To obtain easier access to specific markets in industrialized countries, co-operation arrangements with specialized companies in these countries should be taken into consideration.
- 16) It is recommended that the Government and IRDLAI consider participating very actively in the planned regional net-work co-operation among leather and leather products institutions in the South-East Asia and Pacific region.

17). RECOMMENDATIONS CONCERNING ACTIVITIES AT IRDLAI.

- 1). To facilitate the intensified research and development work on leather finishing techniques foreseen under the new UNDP/UNIDO assistance project, IRDLAI's plans to install available finishing equipment and that to be provided under the new project in a new building to be constructed within the institute area, are fully supported.
- 2). It is recommended that consideration be given to the possibility of establishing at the pilot tannery in Gambiran a pilot effluent treatment plant which could carry out practical effluent treatment experiments under fully industrial conditions. This would be of great interest and would enable IRDLAI to directly demonstrate to the small-scale tanneries, and also to medium-sized tanneries, how various treatment methods function and the costs involved in operating them. ( The existing pilot effluent treatment plant at the IRDLAI itself is aimed at carrying out research work primarily ).
- 3). It is strongly recommended that one or two TPL's, specialized in tanning technology, from each of the small-scale tannery areas of Garut and Magetan and maybe other areas, be trained at the IRDLAI in the treatment of tannery effluents, for a certain period of time, in order that they can afterwards directly assist entrepreneurs in their respective areas in solving the most urgent effluent problems. Such training would also prepare these TPL's for the forthcoming mission of the expert in treatment of tannery effluents foreseen under the new project for 1986.
- 4). To make optimum use of the short stay of the expert in tannery effluent treatment foreseen, it is recommended that during his stay at IRDLAI a larger meeting be organized involving IRDLAI staff, representatives of Government bodies directly concerned with this matter, as well as people from the tanning industry ( small-scale, medium sized and large ) to discuss all aspects of this important subject. This would be an efficient way of treating these problems, and may contribute considerably towards creating an improved awareness of the importance of solving them in a practical, economic manner suited to the respective local conditions existing.



- 5). In view of the fact that no direct assistance is foreseen under the new project for the footwear industry, it would be of great importance to strengthen INDLAI's own efforts in this respect. Consideration should also be given to the possibility of updating and up-grading the specialized knowledge of the TPL's active in CSFS' and MIN's in footwear technology through special courses at the INDLAI, thereby, enabling these TPL's to assist the small-scale footwear entrepreneurs in an even better manner than hitherto.
  
- 6). Upon completion of the present consultant's mission under project UC/INS/83/017 it is anticipated that a limited amount of funds will still be unspent on the budget of this project. It is strongly recommended that appropriate action be taken to ensure that the remaining funds be utilized to purchase books and technical literature so badly needed by INDLAI.

UC/INS/83/017/11-51/31.7.D

**JOB DESCRIPTION**

**Post title** Leather Industry Consultant.

**Duration** Six weeks.

**Date required** As soon as possible.

**Duty station** Yogyakarta, with travel with-in the country.

**Purpose of project** To advise the Government on an integrated long-term development strategy in the field of leather and leather products with special emphasis on the small-scale industry.

**Duties** The consultant will be attached to the Ministry of Industry, through the Leather Research Institute, and will be expected to assess the present condition of the Indonesian leather and leather products industry and to prepare a short study on an overall integrated development strategy for this sector especially considering the small-scale plants development. The study will, in particular, cover the following points :

- i) Raw materials-hides and skins improvement, collection, export/import policies ;
- ii) Leather processing-improvement of working techniques, suggestions on how to improve export/import policies covering equipment/chemicals and unfinished/fully finished leather;
- iii) Footwear and leather goods- advise on proper actions to be taken regarding future developments in the light of recent innovations in that field.
- iv) Marketing-general orientation and means how to increase competitiveness of this sector on foreign markets;

..../...

- v) Training, research activities - advice on how to improve the local expertise available ;
- vi) Technical assistance needs - the study will be supported by an up-dated technical assistance project document taking into consideration the recommendations formulated under project DP/INS/78/001.

The study prepared by the consultant will be attached as an appendix to his final report setting out the findings of his mission and recommendations to the Government on further action which might be taken.

**Qualifications.** Highly qualified leather industry consultant with long experience in performing similar tasks. Knowledge of Indonesian leather industry is a valuable asset.

**Language.** English.

**Background information** According to FAO estimates the livestock and production of raw hides and skins in 1982 was as follows :

	<u>Livestock</u> <u>Heads</u>	<u>Production</u> <u>Pieces</u>
Cattle	8,941,000	1,100,000
Sheep	4,196,000	2,400,000
Goats	7,985,000	4,200,000

This raw material base can, no doubt, sustain a rather strong leather and leather products industry but it is certainly in disproportion to the present and even more to the future needs of the population.

There are more than 250 mainly rural tanneries, more than 1,600 small scale/artisanal footwear and nearly 500 leather goods enterprises in Indonesia, almost 40 % of them located on the Java island.

UNIDO was already involved in the development of leather and leather products industry in Indonesia.

The main objective of the project DP/INS/78/001 " Improvement of Extension Services at the Leather Research Institute " completed in 1982, was to strengthen the capacity of the Institute for Research and Development of the Leather and Allied Industries (INDLAI) and, especially, to extend assistance to the small-scale sector.

Besides practical assistance was given to the Institute and various manufacturers covering various fields, such as raw materials, tanning, footwear design, pattern cutting and production, physical testing, equipment, management, marketing etc. A number of pertinent reports is available for reference.

The follow-up project UC/INS/83/017 was aiming at establishing a mini industrial estate and common service facilities in Medan and Garut which should become models for similar extension service facilities in the country. The latter project was in line with the policy of the Government of Indonesia which calls for the establishment of mini industrial estates (MIEs) and common service facilities (CSFs) basically within the authority of Guidance and Counselling for Small-Scale Industries (BIPIK).

It is believed that this is the right time to reassess the condition of the leather and leather sector in the country and to advise the Government on appropriate policies to be adopted and steps to be taken for the further integrated development of this industry, especially in view of some recent significant technological changes in the leather and leather products sector in the world.

## UNITED NATIONS DEVELOPMENT PROGRAMME

Project for the Government of

INDONESIA

PROJECT DOCUMENT

**Title** : Assistance in the development of new activities at the Institute for Research and Development of Leather and Allied Industries. ( Consolidation Phase ).

**Number** : DP/INS/85/XXX.

**Duration** : Two years and six months.

**Primary function** : Institution Building.

**Secondary function** : Direct Support.

**Sector (Govt.Class)** Industries ( UNDP class.and code ) : Industries (35)

**Subsector (Govt.Class.)** Leather Industries. ( UNDP class.and code ).

**Government Implementing**

**Agency** : Agency for Industrial Research and Development, Ministry of Industry.

**Executing Agency** : United Nations Industrial Development Organization ( U N I D O ).

**Estimated starting date** : April 1986.

**Government inputs** : \_\_\_\_\_  
( in Rupiahs - in kind )

**UNDP inputs** : 800,000  
( US dollars )

**Signed** : \_\_\_\_\_  
( on behalf of the Government )

**Date** : \_\_\_\_\_

\_\_\_\_\_  
( on behalf of the Executing Agency )

**Date** : \_\_\_\_\_

\_\_\_\_\_  
( on behalf of the United Nations  
Development Programme ).

**Date** : \_\_\_\_\_

**PART I. LEGAL CONTEXT**

This Project Document shall be the instrument (therein referred to as a Plan of Operation) envisaged in Article 1, paragraph 2, of the Agreement between the Government of Indonesia and the United Nations Development Programme (UNDP) concerning technical assistance under the Special Fund sector of the United Nations Development Programme, signed by the Parties on .....

**PART II. A. DEVELOPMENT OBJECTIVE**

The long term objective of the project is to further develop the activities at the Institute for Research and Development of Leather and Allied Industries (IRDLAI) in Yogyakarta and to consolidate the capabilities of the Institute to bring them in line with the increasing and rapidly changing requirements of the Leather and Allied Industries, in order for it to substantially assist in the development and growth of this sector in general and the small scale industry in particular, thereby contributing to an increased impact on the economic growth of the country.

**PART II. B. IMMEDIATE OBJECTIVES**

The immediate objectives of the project are to assist the IRDLAI, and through it, the leather and allied industries in Indonesia, in the development of specific new activities to be carried out at the institute as well as in up-grading and further developing those activities already being undertaken.

The activities to be developed and strengthened are :

- all aspects of the finishing of leather, from hides as well as from skins, using up-to-date methods and techniques;
- the treatment of tannery waste waters using optimum economic methods adapted to existing local conditions ;
- the up-grading and improvement of IRDLAI's documentation and information services specialised in the field of the leather and allied industries;
- the setting up of an efficient tannery machinery maintenance service at the IRDLAI, capable also of designing and producing relatively simple machinery for use in the tanning industry;
- the production, on a regular basis, of adequate ranges of leather products which will be acceptable on the domestic market and increasingly also on export markets;

- applied research and development programmes concerning non-leather materials for use in the footwear and leather products industries;
- the specialised training of national counterparts, by the experts attached to the project as well as through fellowship training programmes abroad.

Further, the objectives include also the establishment of closer links between IRDLAI and the leather and allied industries, at all levels of scale, and for all sub-sectors involved, as well as between IRDLAI and similar specialised institutions abroad, particularly those existing in the South East Asia and Pacific region.

**PART II. C. SPECIAL CONSIDERATIONS**

- 1). Most small-scale enterprises in Indonesia are family units and to a considerable extent involve women in the production system. The project shall thus be able to assist significantly in the integration of this particular group into the development process. As many of the industrial enterprises assisted by the project are also rural and village based, any expansion or growth induced by the project would thus be of direct benefit to the rural poor and economically disadvantaged and depressed population.

The assistance to be provided will aim at producing a shift from small scale units towards medium-sized enterprises. The huge local market, now being explored, discloses a large potential for all sizes of enterprises within the leather and allied industries.

The interdependency of all sectors, however, forces to the adoption of an overall approach, and stronger links should be established between the various sectors. In helping the IKDLAI organizing and assisting all kinds of industries within the leather, leather products and also non-leather products sector, the project will strengthen also the small-scale industry and help preventing that it remains primitive and back-yard.

- 2). The maintenance of machinery once it is bought is one of the most serious problems facing manufacturers in the leather industry in developing countries, especially when the machinery supplier is not directly represented in the country of the buyer. High travel costs, resulting in high repair costs and delayed service are facts to be reckoned with.

It can take several days before repairs can be carried out, during which period the production can be held up or even completely stopped through the breakdown of essential machinery. This often results in that order deadlines can not be met, which is of particular importance when export orders are involved.

Especially for small scale industries, that are not in a position to claim special after sales service since they only have very limited equipment, the breakdown of available machinery frequently means that they will be out of business.



Through improved maintenance services and the local production of certain types of tannery machinery, the IRDLAI, assisted by the project, will help small scale and medium sized enterprises in this respect.

- 3). With the steadily growing activities within the leather industry sector, especially in small and medium scale enterprises, and the increasing demand of the customers for better quality of the products, further mechanization of the production will necessarily occur, although the importance of highly labour-intensive organization of the production will have to be duly taken into account. The need for skilled and highly skilled labour will, therefore, increase rapidly also in the leather and leather products industries.

Therefore, one of the highlights of this assistance programme will be up - graded vocational training at all levels for the entire leather and allied industries sector. With the strengthening of its pilot plants for practical work the IRDLAI, assisted through this project, will be in a better position than previously to provide well planned and practically oriented training for the whole sector.

#### **PART. II. D. BACKGROUND AND JUSTIFICATION**

Under previous UNIDO, executed projects to assist the leather industry in Indonesia, (IS/INS/74/030, DP/INS/78/001 and UC/INS/83/017), the situation of the Indonesian leather and leather products industries has been surveyed and assessed. The studies carried out have shown that there is a considerable difference between small-scale industrial enterprises on the one side, and medium sized and large scale enterprises on the other side.

Only the large and medium sized tanneries, having the necessary equipment and technological know-how, have been able to penetrate, to a certain extent, export markets, principally with different types of semi-processed hides and skins. The small-scale industry has catered for the domestic market only.

However, due to increasing difficulties facing these enterprises involved in the export of leathers, medium and large scale tanneries are increasingly producing finished leather for the domestic market, which situation in the future is expected to influence the activities of the small-scale tanneries in an even greater extent than hitherto.

Therefore the further development of the small-scale industry can not be considered in isolation, but has to be considered within the framework of an integrated development approach embracing enterprises of all sizes. As a consequence of this also the assistance capability of the IRLAI should be geared towards assisting the leather industry sector on an "all-size" basis, thereby ensuring a well-balanced development of the entire sector.

One of the biggest problems that the leather industry is facing, seems to be the insufficient availability of trained personnel at all levels. The further development of various training activities at the IRLAI and also at the Academy of Leather Technology, therefore, has to be given high priority.

#### The Tanning Industry

The existing tanneries in Indonesia range from very primitive rural sole leather tanning units to modern industrial tanneries, producing upper leather for shoes and speciality skin leathers for gloves etc, using the most modern machinery and up-to-date production techniques.

Since 1974, when the export of raw hides and skins from Java was banned, there has been a considerable up-swing of industrial tanning activities, most pronounced in the production of pickled skins and wet-blue and crust leather from sheepskins and goatskins, for export purposes.

The survey report referred to earlier indicates that there are 10 large-scale tanneries, 16 medium-sized and more than 400 small-scale tanneries, processing together a total of over 1,050,000 hides (from cattle and from buffaloes) and more than 1,400,000 skins (sheepskins and goatskins), with a total labour force of over 5,700 persons.

Some of the factories, however, are hampered considerably by lack of capital to purchase necessary machinery which would enable them to advance their production from pickled or wet-blue hides and skins to crust and finished leather.

Furthermore, most of the factories work at considerably less than full production capacity, due to insufficiently developed export markets and changes in the factory's production line. Some tanneries have changed their production line from mainly sole leather production to the

production of shoe upper leather or even to the production of skin leather. This change necessarily take a certain time to reach full impact and involves considerable technical and managerial problems which have to be overcome.

Leather finishing techniques and methods will have to be given special attention, and be improved in order to ensure that the finished products (finished leather and finished leather products) would be readily acceptable in the international market. This stresses the importance of intensifying R & D efforts at the IRDLAI in finishing methods and techniques, which are foreseen under this new project.

#### Footwear industry.

The Indonesian footwear industry has developed substantially during the last few years. Some large scale units and a number of medium-sized and small scale footwear manufacturing units have been established, in the various provinces of Indonesia, during this period.

The survey report on the leather sector indicates that there exists 38 large scale footwear factories, some 800 medium-sized factories and approximately 2000 small scale footwear manufacturing units.

These factories jointly produced, in 1979, a total of 27 million pairs of leather shoes annually. In addition comes the production of approximately 60 million pairs of non-leather footwear (plastic slippers, sandals and canvas shoes).

The large scale factories, which mostly are mechanized units, are using modern production techniques and have the necessary managerial and other resources required. Their total work force is 3,800 persons.

The medium sized and small-scale footwear manufacturers, however, are still using highly labour-intensive production methods, with the minimum of mechanization. They employ jointly a total work force of approximately 26,000 persons, and accounted, in 1979, for almost 60 percent of the total production of leather footwear.

Although there is a considerable potential for the further development of the footwear industry, particularly within the two latter groups, there still remains some major problem areas which need to be solved or improved upon.

This refers, among other things, to the application of appropriate tools and basic machinery, to the design and product development in accordance with the changing fashion requirements of the markets, to production management and cost and quality control aspects, and to the utilization of the most suitable materials for the manufacture of the products envisaged.

Leather goods industry.

This cottage industry has developed very rapidly during the last few years with the establishment of many medium-sized and small-scale units in the various provinces of the country. The survey report referred to indicates that there are 279 medium-sized and over 600 small-scale units manufacturing different types of leather goods. There are, however no large-scale units. A total of 8,600 workers are employed in this industry. The quantification of the total production, however, is extremely difficult to establish, due to the great number of different products manufactured at a variety of models, sizes, etc.

Existing bottle-necks in this industry concern designs, manufacturing techniques, including finishing techniques, appropriate use of tools, management skills and basic costing systems.

Provided corrective action is taken to remedy these bottlenecks, then this industry, which also caters for the requirements for various leather goods of the tourists trade, could develop into a soundly based industry, which also have a considerable export potential.

Use of non-leather materials in the footwear and leather goods industry.

In view of the fact that the country's cattle population augments only very slowly, and at an increase rate which is considerably less than the increase rate of the human population, the availability of cattle per capita, and consequently also of cattle hides per capita, is expected to decrease at an accelerating rate in the future. As cattle hides are the main raw material for the shoe upper leather and sole leather production, these materials will not, by far, cover the future needs of the footwear industry.

The rapidly increasing human population and the steadily increasing standard of life in Indonesia further accentuates this situation.

Therefore, there is an evident need for considering manufacturing increasing amounts of non-leather footwear, and non-leather "leather goods", using materials like simulated leather, plastics and rubber. This fully justifies the inclusion of advanced applied research and development activities at the IRDLAI on such materials and such products foreseen under this new project.

Rubber and plastics goods industries.

There are about 600 plastics goods and 250 rubber goods production units throughout the country, employing a total of more than 6,000 people. The products manufactured are for a great variety of end-uses, among them also in the footwear and leather goods industries. The existing units have the capacity to expand their production and diversify the products manufactured when the appropriate technological know-how is made available to them.

The IRDLAI has a responsibility to assist also this industrial subsector. The function of the institute in this respect is to check the materials used for quality and to subject the goods manufactured to a variety of physical tests. It has also the responsibility of developing new product lines and of advising the producers how to manufacture those new products required by the market.

The intensified applied research and development activities on non-leather materials foreseen under this new project and the increased industrial production of such products<sup>are</sup> in line with the requirements to utilize increasingly suitable non-leather materials in the footwear and leather goods industry sector.

**PART II. E. OUTPUTS**

It is expected that the following outputs will result from the implementation of this project :

- 1). A well equipped and well functioning leather finishing department at IRDLAI's pilot tannery in Gambiran, with well trained national specialists able to assist the small-scale and medium-sized tanneries in the finishing of different types of leather, from hides as well as from skins.
- 2). Concrete recommendation to the tanning industry for the carrying out of suitable processes for tannery effluent treatment, complying in the most economic manner to existing local requirements and conditions. In particular, concrete technical and economic recommendations for the establishment and operation, at Garut, of a suitable effluent treatment plant common for the small-scale tanneries of that cluster, will be available.
- 3). A well functioning scientific and technical documentation and information service at the IRDLAI, collecting and disseminating research results, technological, trade, economic and market data of specific interest to the leather and leather products industries, including non-leather products used in this industrial sector.
- 4). A well established tannery machinery maintenance team at the IRDLAI capable of rendering required machinery maintenance services to small-scale and medium-sized tanneries, and also able to and having the facilities for the design and production locally of certain specific types of relatively low production tannery machinery.
- 5). Concrete recommendations to the small-scale and medium-sized industry on the technology and manufacture of non-leather products for use in the footwear and leather goods industries made from simulated leather, plastics and rubber.
- 6). A survey study presenting facts and figures on the present and future needs of non-leather materials used in the footwear and leather goods industries, as well as present and expected future availability of such materials in Indonesia.

- 7). An adequate number of well trained national counterpart staff specialized in the respective specific fields of activity covered by this project.
- 8). Up-graded ranges of various leather products, produced on a regular basis, which meet the fashion and quality requirements of the domestic market and increasingly also of international markets.
- 9). Well established linkages with similar institutions in other countries active in the field of leather and allied industries, particularly with those specialized institutions existing in the South-East Asia and Pacific region.

PART II. F.

Activities

Implementation  
Schedule Planned.

- |                                                                                                                                                                                                                                                                                  |                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 1). Requisition and purchase machinery and equipment to be supplied under this project.                                                                                                                                                                                          | The main part to be ordered in the first two months of project operation, the rest when budgetary conditions permit. |
| 2). Supervise the installation of machinery and equipment and its putting into operation.                                                                                                                                                                                        | After arrival of equipment.                                                                                          |
| 3). Carry out appropriate applied research programmes at the IRDLAI in the field of dyeing and finishing of leather, and provide direct technical assistance to existing tanneries, both small-scale and medium-sized, with particular emphasis on leather finishing techniques. | During the entire duration of project operation.                                                                     |
| 4). Advise the IRDLAI, other Government bodies concerned and the tanning industry on all aspects of treatment and purification of tannery waste waters, including recycling and solid waste disposal. Carry out a specific study for..                                           | During the first nine months of project operation.                                                                   |

Activities

Implementation  
Schedule Planned

the establishment at Garut of a suitable effluent treatment plant to be used in common by the small-scale tanneries concentrated in that area, also as a model for similar clusters elsewhere. (Funds for the establishment of such plant have to be sought from sources external to this project).

- |                                                                                                                                                                                                                                                                                                                                                                                          |                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 5). Assist in the efficient running of IRDLAI's documentation and information services which will cover all sectors of the leather and allied industries, with respect to scientific, applied research, technological, machinery, as well as trade and economic aspects of these specific areas of activity.                                                                             | During the entire duration of project operation.       |
| 6). Set up at the IRDLAI an allround tannery machinery maintenance team, and advise on the design and engineering of specific machines to be produced locally, of relatively low production levels, and suitable for use in small-scale and medium-sized tanneries.                                                                                                                      | During the first nine months of project operation.     |
| 7). Carry out applied research and development activities in the field of the manufacture and utilization in the footwear and leather goods industries of non-leather materials, with particular emphasis on simulated leathers, plastic and rubber materials. Elaborate concrete recommendations for the industrial manufacture of such materials and specific products made therefrom. | During the second and third year of project operation. |



- 8). Carry out a survey of the present and future uses of non-leather materials in the footwear and leather goods industries, including the estimated availability of suitable materials in Indonesia, actually being produced or those that realistically can be expected to be produced locally in the next five to ten years. During the second year of project operation.
- 9). Intensify the activities being undertaken regarding the production on a regular basis, of adequate ranges of leather products ( and similar products ) which will meet the requirements of national and of international markets. During the entire period of project operation.
- 10). Train the national counterpart staff, technologists and researchers, specialized in the various specific subjects covered by this project . During the entire duration of project operation.
- 11). Elaborate and arrange fellowship training programmes abroad for selected candidates in the specialized fields covered by this specific project, and arrange and conduct study tours to selected developed countries (Japan, USA, Western Europe) in new fields of activity being taken up under this project. To be decided.
- 12). Advise the Government and enterprises within the leather and allied industries on technical, technological, organizational, managerial, economic and marketing aspects as required and to the extent possible. During the entire period of project operation.

PART II. G. INPUTS.

1) Government inputs.

(a) Recurrent and capital expenses.

The Government's recurrent and capital budget will provide for counterpart personnel, support staff, office supplies, necessary services and suitable premises for the project.

(b) Premises.

Furnished and suitably equipped office accommodation for the international team of experts will be provided by the Government in accordance with the actual needs of the project.

(c) Assignment of national staff.

The Director of the IRDLAI will be Project Director, who will supervise the implementation of the project in close cooperation with the UNIDO Team Leader.

A full time professional officer will also be assigned to the UNIDO Team Leader who will work with him on day to day operations of the project including accompanying him on his visits to the industry.

The other technical experts will also be provided with suitably qualified counterparts and for special activities with more than one national counterpart per expert.

Total estimated cost is Rp. 9.146.000,- for 173 m/m

- i) Support personnel needed for implementing the programs in all fields, the total estimated cost is Rp. 18,438.000,- for 638 m/m.
- ii) Travel for the UNIDO Experts within Indonesia and counterparts will be provided by the Government, the total estimated cost is Rp. 58.416.000,-
- iii) The government will also provide funds in rupiah currencies dealing with training inhouse and outhouse according to the programs, meeting in IRDLAI in the field of tannery waste water treatment, and publication, office facilities and secretarial assistant to the project which is included under other cost. Total estimated cost is Rp. 84.000.000,-

(d) Training provision.

Maintenance of national trainees during the fellowship period will be ensured.

(e) Government provided equipment.

The existing machinery and equipment lab scale waste water treatment available at the IRDLAI's technical departments will be utilized when required for the successful implementation of the project, and in addition, to the equipment provided by UNDP., equipment, prototype waste water treatment, and tools for the machineries will be provided by the Government in accordance with the needs and budgetary possibilities.

A detailed list of equipment, prototype waste water treatment at Gambiran Tanning Plant, and machinery to be provided by the Government will be established upon the Team Leader assessment and when budgetary consideration has been clarified.

Total estimated cost is Rp. 70.000.000,-

A preliminary amount for Government provided equipment to the project as listed below has been included into the budget for the Government counterpart contribution.

Tools(equipment/prototype waste water treatment).

<u>i) Expendable equipment</u>	<u>Price in Rp</u>
I. Leather finishing (chemicals, materials, tools, etc)	7.500.000
II. Leathergoods (materials, accessories, chemicals, tools, etc)	2.000.000
III. Simulated leather (materials, accessories, chemicals, tools, etc)	2.500.000
IV. Plastic and Rubber products (materials, accessories, tools, etc)	3.000.000
<u>ii) Non expendable equipment</u>	
I. Tannery Unit (to be specified)	2.000.000
II. Leather and Synthetic, Rubber and Plastic products unit (to be specified)	3.000.000
	<hr/>
	20.000.000

iii)	<u>Prototype</u>	
	I. (Waste water treatment for tannery effluent) compressor, pump and installation	20.000.000
	II. Tanning machinery / tools (technical design, engineering drawing, materials for tannery waste water treatment prototype)	25.000.000
iv)	<u>Library</u> Technological books/magazines/periodicals for leather, rubber and plastic	5.000.000
	Total estimated :	<hr/> 70.000.000

(F) Miscellaneous

The Government will provide office equipment and supplies , storage , installation , operation and maintenance of equipment as well as materials and chemicals required for the various applied research programmes foreseen to be carried out under this project.

The Government will provide drivers and petrol for project vehicles for work done on the project and be responsible for the maintenance of the vehicles.

Necessary customs clearance and other cost of vehicles and equipment, also installation, transportation, trial operation and maintenance of the equipment will be responsibility of the Government.

Total estimated cost is Rp. 60.000.000,-

2) UNDP INPUTS

(a) Personnel

Duration of assignment.

Post 11-01- Leather Finishing expert,  
International Team Leader.

30 months.

The expert should have extensive experience in the leather industry, with especial emphasis on leather finishing using the latest methods and techniques. He will demonstrate such finishing techniques in the IRDLAI pilot tannery and train national counterparts accordingly. Together with his counterparts he will also provide direct technical assistance in his field of experience particularly to small scale and medium sized tanneries, in various parts of the country. He will also, together with the National Project Director, supervise the implementation of the project and coordinate the activities of the other international experts attached to the project. Further, he will actively participate in carrying out training courses for the leather industry as well as in R & D programmes to be implemented at IRDLAI through the project.

Post 11-02. Expert in the treatment of  
tannery effluents.

2 months.

The expert should have extensive knowledge of and experience in the treatment of waste waters from tanneries, under practical, industrial conditions prevailing in developing countries, at various scales of operation, using the most economic methods available.

He will advise industrial enterprises, the IRDLAI and Government bodies concerned with environmental problems on these matters, and will train national counterparts accordingly, and, time permitting, participate in relevant R & D activities at the IRDLAI. In particular he will elaborate concrete recommendations for the establishment at the small-scale tanneries in Garut, of a common effluent treatment plant.

Post 11-03. Expert in documentation and information.

2 months.

The expert should have extensive experience in operating documentation and information services specialized in the field of leather and allied industries. He will assist the IRDLAI in operating a well functioning documentation and information service, including establishing closer links with important specialized services at leather centres in other countries, thereby facilitating the access to information sources of specific interest to this industrial sector, regarding scientific, technological, trade and economic documentation and information.

Post 11-04. Expert in tannery machinery.

3 months.

The expert should have extensive industrial experience in maintenance and engineering of tannery machinery. His field of action will not only cover the maintenance of usual tannery machinery and the organization of such services, but will also include the design and engineering of machinery to be produced locally, suitable for relatively low productions in small-scale and medium-sized tanneries. He will train national counterparts and set up an allround tannery machinery maintenance team at the IRDLAI. He will also actively participate in the carrying out of training courses for the leather industry.

Post 11-05. Expert in the manufacture of simulated leather.

6 months.

The expert should have extensive experience in the manufacture of simulated leather. He will demonstrate, at the IRLAI, simulated leather manufacturing technology, on a laboratory scale, and will also make concrete recommendations regarding the further development of this project into industrial scale operation. He will train national counterparts in the manufacturing of simulated leather, and also participate in the research activities at the IRLAI on simulated leather.

Post 11-06. Expert in leather goods.

6 months.

The expert should have the necessary qualifications and extensive experience in the leather goods industry. Capabilities in product development, designing and pattern making, as well as in production technology will be needed. Previous experience from a leather goods institute is an asset. He will be expected to follow up the work initiated at an earlier stage in the leather products pilot plant. He will advise on and assist in appropriate manufacturing methods and will train national counterparts accordingly. He will demonstrate the newest techniques in the leather goods pilot plant and advise on their adaptation to local conditions. He will give special attention to local handicraft and will put emphasis on the promotion of export in the leather goods branch.

Post 11-07. Expert in plastics products.

3 months.

The expert should have extensive experience in manufacturing processes using injection methods for the production of articles made of plastics.

He will demonstrate a laboratory scale-research programme at the IRDLAI, and train national counterparts in the field of producing different kinds of plastics products to be used in the footwear and leather goods industry, using different production methods. He will also actively participate in the IRDLAI research programme on plastics products.

Post 11-08, Expert in rubber products.

3 months.

The expert should have extensive experience in the field of manufacturing of small rubber goods produced by the small-scale rubber industry with standardised items. He will demonstrate in the IRDLAI, how to manufacture an appropriate variety of small rubber goods for use in the footwear industry in particular, and train national counterparts in this specific field. He will also participate actively in IRDLAI's R & D programmes in the field of rubber goods manufacturing.

(b) Other Personnel Costs.

Cost

Provision is made in the budget for the participation of a UNIDO staff member in the mid-term project review mission foreseen for the second half of 1987.

US \$. 5,000

(c) Training component.

Costs

Provision is made in the budget for individual fellowships, to an amount of  
and for study tours, to an amount of

US \$. 50,000

US \$. 15,400

Practical training abroad and study tours are considered in the specific fields covered by the project activities foreseen.

Details of this training programme will be decided upon in the course of project implementation.



depending on skill levels of trainees and the availability of appropriate training facilities in institutions and/or enterprises abroad. The selection of candidates for these training programmes will be made by the National Project Director, <sup>in</sup> close consultation with AIED and UNIDO.

Total training component :

US. \$. 65,400

Note : It has been realized that the training needs are greater than what can be accommodated within the scope of this project. Therefore, the project management is expected, during project implementation, to investigate the possibilities of locating bilateral sources to finance additional training activities identified.

(d) UNDP provided equipment

Non-expandable equipment :

Estimated cost

Tannery machinery :

US. \$.

One hydraulic press (Nestardini type) 300 ton, with 3 additional embossing plates (plate size : 127 cm x 65 cm ).	50,000
One vibrating staking machine	30,000
One ironing machine (type finiflex)	35,000
One spraying machine for leather finishing	25,000

For R & D at IRDLAI :

One Laboratory calendering machine for plastics	20,000
One injection moulding unit	20,000
<u>One Laboratory extraresin moulding unit</u>	18,000
Two project vehicles	20,000

Sub - total

218,000 US. \$.

Sub - total	218,000 US.\$.
Expendable equipment, including spare parts for existing machinery and necessary items for the documentation and information centre.	10,000 US.\$.
Total equipment component	228,000 US.\$.
(e) Miscellaneous, including reporting costs :	20,000 US.\$.

PART II. H. WORK PLAN

A detailed work plan for the implementation of the project will be prepared by the International Team Leader in consultation with the National Project Director. This will be done at the start of the project and brought forward periodically. The work plan agreed upon will be attached to the project document as an annex and will be considered as part of this document.

PART II. I. PREPARATION OF THE FRAMEWORK FOR EFFECTIVE PARTICIPATION OF NATIONAL AND INTERNATIONAL STAFF IN THE PROJECT.

The activities necessary to produce the indicated outputs and achieve the project's immediate objectives will be carried out jointly by the national and international staff assigned to it. The respective roles of the national and international staff will be determined by their leaders, by mutual agreement, at the beginning of the project, and set out in a Framework for Effective Participation of National and International Staff in the project. The Framework, which will be attached to the project document as an annex, will be reviewed from time to time. The respective roles of the national and international staff shall be in accordance with the established concept and specific purposes of technical co-operation.

PART. II. J. DEVELOPMENT SUPPORT COMMUNICATION.

In assisting the IRDLAI in the efficient operation of an information and documentation service and know-how bank in the specialized field of leather and allied industries, the project will assist and promote activities aiming at encouraging the national counterparts to actively participate in a development programme which will improve quality of products, their design, manufacturing techniques and the marketing of different products being manufactured by the industry.

The training activities will be directed towards performing a development support communication function and ensure that the project makes an effective contribution to the long term objective of the project.

It is anticipated that close cooperation will be established between this project and the UNDP/UNIDO assisted Small Scale Industry Development Project ( BIPIK ) which is presently in operation, by having close contact with the Industrial Extension Service, Pusat Pengembangan Industri Kecil (PPIK) for the dissemination of research and development results.

PART II. K. INSTITUTIONAL FRAMEWORK.

The project will be directly attached to the Institute for Research and Development of Leather and Allied Industries (IRDLAI), located in Yogyakarta. Its complete name in Indonesian language reads : Balai Besar Penelitian dan Pengembangan Industri Barang Kulit, Karet dan Plastik.

The Director of IRDLAI will be the National Project Director for this project. IRDLAI has a total staff of 358 persons, 267 men and 91 women, the educational background level of which is as follows :

Full graduate level	39
Bachelor of Science	71
High School level	163
Middle level	85
Total :	<u>358</u>

The institute has four R & D divisions, respectively dealing with :

- Research on leather products
- Development of leather products
- Research on rubber and plastics products, and
- Development of rubber and plastics products.

The administrative and supporting facilities include :

General administration.,

Library and documentation and information department, and well equipped laboratories and workshops covering specific fields of research on raw hides and skins, tanning processes and pollution, and leather products, physical and chemical testing of leather and leather products as well as of rubber and plastics products. There are specialized units for fashion and design, pattern grading, shoe lasts, maintenance of machinery, and footwear and leather goods development. IRDLAI's pilot tannery is located at Gambiran, at some 3 Kms distance from the institute itself. The tannery is operated as an industrial plant, and has a staff of 30 persons and a regular production of some 750 cattle hides per month, for chrome tanned upper leather.

The IRDLAI carries out a number of different services to the leather and allied industries, mainly aiming at assisting small-scale and medium-sized enterprises. Shorter term training courses are implemented frequently and covers both the leather, footwear and leather goods industries. These training courses are mainly financed through BIPIK.

PART II. L. 1. PRIOR OBLIGATIONS.

Not applicable.

PART II. L. 2. PREREQUISITES.

Not applicable.

PART II. M. FUTURE UNDP ASSISTANCE.

No future UNDP assistance is anticipated at this stage.

PART III. SCHEDULES OF MONITORING, EVALUATION AND REPORTS.

PART III. A. TRIPARTITE MONITORING REVIEWS, TECHNICAL REVIEWS.

The project will be subject to periodic review in accordance with the policies and procedures established by UNDP for monitoring project and programme implementation.

PART III. B. EVALUATION.

The project will be subject to evaluation, in accordance with the policies and procedures established for this purpose by UNDP. The organization, terms of reference and timing of the evaluation will be decided through consultation between the Government, UNDP and the Executing Agency.

It is anticipated that a mid-term tripartite evaluation of the project will be carried out during the 17th month of project operation, by the Ministry of Industry, UNDP and the Executing Agency.

PART III. C. PROGRESS AND TERMINAL REPORTS.

Each expert will prepare bimonthly technical progress reports and a final report at the end of his assignment in accordance with UNDP policies and procedures.

Each national fellowship trainee will at the end of his training prepare a final report in accordance with UNDP policies and procedures. The project evaluation mission will prepare an evaluation report, according to UNDP policies and procedures.

The International Team Leader will be responsible for the preparation of sixmonthly project progress reports and also for the preparation of the draft project terminal report at the end of the project.

The Executing Agency will be responsible for the preparation and issuance of the finalized project terminal report.

PART IV. PROJECT BUDGET.

The project budget covering the UNDP inputs is attached.

The project budget covering the Government counterpart contribution in kind is also attached hereto.



3 COUNTRY <b>INDONESIA</b>	4. PROJECT NUMBER AND AMENDMENT <b>DP/INS/85/XXX</b>	5. SPECIFIC ACTIVITY
10 PROJECT TITLE <b>Assistance in the development of new activities at the Institute for Research and Development of Leather and Allied Industries ( Consolidation Phase ).</b>		

15. INTERNATIONAL EXPERTS (functional titles required except for line 11-50)	16. TOTAL		17. 1986		18. 1987		19. 1988		20.	
	m/m	\$	m/m	\$	m/m	\$	m/m	\$	m/m	\$
11-01 <del>Leather finishing expert (International team leader)</del>	30	270,450	9	75,150	12	108,000	9	87,300		
02 <del>Expert in treatment of tannery effluents</del>	2	14,900	2	14,900	-	-	-	-		
03 <del>Expert in documentation &amp; information</del>	2	14,900	2	14,900	-	-	-	-		
04 <del>Expert in tannery machinery</del>	3	22,350	3	22,350	-	-	-	-		
05 <del>Expert in manufacture of regulated leather</del>	6	48,300	-	-	6	48,300	-	-		
06 <del>Expert in leather goods</del>	6	50,250	-	-	3	24,150	3	26,100		
07 <del>Expert in plastics products</del>	3	26,100	-	-	-	-	3	26,100		
08 <del>Expert in rubber products</del>	3	26,100	-	-	-	-	3	26,100		
09										
10										
11										
12										
13										
14										
15										
16										
11 50 Short term consultants										
11 99 Sub-total - International experts <sup>a</sup>	<b>55</b>	<b>473,350</b>	<b>16</b>	<b>127,300</b>	<b>21</b>	<b>180,450</b>	<b>18</b>	<b>165,600</b>		
21 REMARKS										

<sup>a</sup> If more than 16 experts are required check here  and attach continuation sheet 1A. This sub-total *must* include all experts.



4. PROJECT NUMBER <b>DP/IMS/85/XXX</b>	16. TOTAL		17. 1986		18. 1987		19. 1988		20.	
	m/m	\$	m/m	\$	m/m	\$	m/m	\$	m/m	\$
OPAS EXPERTS (functional titles required)										
12-01										
12-02										
12-03										
12-99 Sub-total—OPAS experts <sup>b</sup>										
ADMINISTRATIVE SUPPORT PERSONNEL										
13-00 Clerks, secretaries, drivers										
13-50 Freelance interpreters (non-UNDP projects)										
13-99 Sub-total—Administrative support personnel										
UN VOLUNTEERS (functional titles required)										
14-01										
14-02										
14-03										
14-04										
14-99 Sub-total—UN Volunteers <sup>b</sup>										
15-00 Project travel		8,250		2,400		3,150		2,700		
16-00 Other personnel costs (including UNIDO staff mission costs)		5,000		-		5,000		-		
NATIONAL EXPERTS (functional titles required)										
17-01										
17-02										
17-03										
17-04										
17-05										
17-99 Sub-total—National experts <sup>b</sup>										
19-99 TOTAL—PERSONNEL COMPONENT		486,600		129,700		188,500		168,300		

<sup>b</sup>If additional individual budget lines are required, check here  and attach continuation sheet 1A. These sub-totals must include budget lines listed on page 1A.



UNIDO

## PROJECT BUDGET/REVISION

PAGE 3

4 PROJECT NUMBER <b>DP/TKB/85/XXX</b>	16. TOTAL		17. 1986		18. 1987		19. 1988		20.	
	m/m	\$	m/m	\$	m/m	\$	m/m	\$	m/m	\$
SUBCONTRACTS										
21-00 Subcontracts										
TRAINING										
31-00 Individual fellowships		50,000		25,300		10,000		14,700		
32-00 Study tours: UNDP group training		15,400		•		6,400		9,000		
33-00 In-service training										
34-00 Non-UNDP group training										
35-00 Non-UNDP meetings										
39-99 TOTAL - TRAINING COMPONENT		65,400		25,300		16,400		23,700		
EQUIPMENT										
41-00 Expendable equipment		10,000		•		10,000		•		
42-00 Non-expendable equipment		218,000		140,000		78,000		•		
43-00 Premises										
49-99 TOTAL - EQUIPMENT COMPONENT		228,000		140,000		88,000		•		
MISCELLANEOUS										
51-00 Sundries		20,000		5,000		7,000		8,000		
55-00 Hospitality (non-UNDP projects)										
56-00 Support costs (CC and DC projects only)										
57-99 TOTAL - MISCELLANEOUS COMPONENT										
SURPLUS/DEFICIT										
81-00 Surplus/Deficit (ADM/FS use only)										
99-99 PROJECT TOTAL		800,000		300,000		300,000		200,000		
<sup>c</sup> COST SHARING (UNDP/IPF projects only)										
<sup>c</sup> NET UNDP CONTRIBUTION										

<sup>c</sup> For information only - not for PAD input



COUNTRY : INDONESIA  
 PROJECT NO :  
 PROJECT TITLE : ASSISTANCE IN THE DEVELOPMENT  
 OF NEW ACTIVITIES AT THE IREDAI  
 ... CONSOLIDATION PHASE )  
 ( IN 000 RUPIAH )

PROJECT BUDGET COVERING GOVERNMENT CONTRIBUTION

	1986/1987		1987/1988		1988/1989			
	m/m	m/m	m/m	m/m	m/m	m/m		
1 Project Officer	1 30	1 1,710	1 9	1 513	1 12	1 684	1 9	1 513
3 Counterpart in leather finishing	1 90	1 4,680	1 27	1 1,404	1 36	1 1,872	1 27	1 1,404
6 Counterpart in treatment of tannery effluents	1 12	1 624	1 12	1 624	-	-	-	-
1 Counterpart in documentation & information	1 2	1 104	1 2	1 104	-	-	-	-
1 Counterpart in tannery machinery	1 3	1 156	1 3	1 156	-	-	-	-
2 Counterpart in manufacture of simulated leather	1 12	1 624	-	-	1 12	1 624	-	-
2 Counterpart in leather goods	1 12	1 624	-	-	1 6	1 312	1 6	1 312
2 Counterpart in plastic products	1 6	1 312	-	-	-	-	1 6	1 312
2 Counterpart in rubber products	1 6	1 312	-	-	-	-	1 6	1 312
<b>SUB TOTAL</b>	1 173	1 9,146	1 53	1 2,801	1 66	1 3,492	1 54	1 2,855
Support personnel	1 638	1 18,438	1 200	1 9,775	1 234	1 6,816	1 204	1 9,847
Travel	1 1	1 28,416	1 1	1 26,000	1 1	1 16,416	1 1	1 16,000
Other cost	1 1	1 24,000	1 1	1 30,000	1 1	1 30,000	1 1	1 24,000
<b>COMPONENT TOTAL</b>	1 1	1 170,000	1 1	1 64,576	1 1	1 56,724	1 1	1 48,700
Equipment, Prototype waste water treatment	1 1	1 70,000	1 1	1 32,500	1 1	1 22,500	1 1	1 15,000
Miscellaneous	1 1	1 60,000	1 1	1 15,000	1 1	1 30,000	1 1	1 15,000
<b>GOVERNMENT TOTAL CONTRIBUTION</b>	1 1	1 300,000	1 1	1 112,076	1 1	1 109,224	1 1	1 78,700

Comparison of livestock population  
and estimated slaughter in Indonesia  
with that of Asia and the world  
total ( 1982 )  
( million heads )

<u>Bovine (including buffaloes).</u>	<u>Number of live animals</u>	<u>Heads slaughtered</u>	<u>Percentage (off-take rate)</u>
W o r l d	1,348,5	275,2	20,4
A s i a	503,3	72,7	14,4
I n d o n e s i a	8,9	1,1	12,4
<u>Goats and kids.</u>			
W o r l d	472,8	191,7	40,5
A s i a	287,3	126,4	44,0
I n d o n e s i a	8,0	4,2	52,5
<u>Sheep and lamb.</u>			
W o r l d	1,157,7	434,8	37,6
A s i a	368,6	148,5	40,3
I n d o n e s i a	4,2	2,4	57,1

Source : FAO , World Statistical Compendium for Raw Hides and Skins,  
Leather and Leather Footwear 1961 - 1982 , FAO, Rome , 1983.

Development of livestock population in  
Indonesia during the period 1969-1980  
(in million heads)

	<u>Cattle</u>	<u>Buffaloes</u>	<u>Goats</u>	<u>Sheep</u>
1969	6,447	2,940	7,544	2,998
1970	6,245	2,885	6,336	3,362
1971	6,245	2,918	6,943	3,146
1972	6,286	2,822	6,189	2,996
1973	6,389	2,276	6,665	3,480
1974	6,380	2,415	6,517	3,403
1975	6,242	2,432	6,315	3,374
1976	6,237	2,284	6,904	3,603
1977	6,217	2,292	7,232	3,864
1978	6,330	2,312	8,051	3,611
1979	6,364	2,432	7,659	4,071
1980	6,440	2,457	7,691	4,124

Source : Research report on the industry potential of raw hides and  
skins in Indonesia (Year 1982).

( Laperan Penelitian tentang Potensi industri kulit mentah  
di Indonesia tahun 1982 ).

Availability of raw hides and skins in  
Indonesia , 1978 - 1982 (estimated)  
(in million pieces)

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	Cattle <sup>1)</sup> hides	Buffaloes <sup>2)</sup> hides	Sheep <sup>3)</sup> and lamb skins	Goat and <sup>4)</sup> kid skins
1978	0,795	0,191	n.a.	n.a.
1979	0,793	0,186	n.a.	n.a.
1980	0,746	0,186	2,2	3,8
1981	0,828	0,185	n.a.	n.a.
1982	0,861	0,189	2,4	4,2

- 1) After applying the correction factor of 25 % referred to in report.  
 2) After applying the correction factor of 10 % referred to in report.  
 3) Converted from FAO figures on skin production (dry weight) using the conversion factor of 0,50 kg/skin given by FAO.  
 4) Converted from FAO figures on skin production (dry weight) using the conversion factor of 0,50 kg/skin given by FAO.

n.a. = data are not available here.

Sources : Same as for ANNEX IV concerning 1) and 2) and  
 World statistical compendium for raw hides and  
 skins, leather and leather footwear 1961 - 1982,  
 FAO , Rome , 1983, concerning 3) and 4).

Production of leather in Indonesia

	Light leather from sheep and goat skins (in million square feet)	of which for export	Heavy leather from bovine hides (in 1000 metric tons)	Light leather from bovine hides (in million square feet)
1970	3,4	2,0	4,0	n.a.
1975	9,0	0,9	3,5	n.a.
1980	12,2	7,5	2,0	n.a.
1982 (estimate)	13,0	7,5	2,5	42,0

Source : World statistical compendium for raw hides and skins, leather  
and leather footwear 1961 - 1982 , FAO, Rome, 1983.

**Leather industry sector  
in Indonesia ( 1982 )**

**Number of production units (estimated) :**

	<u>Large</u>	<u>Medium</u>	<u>Small</u>
Tanneries	10	16	405
Shoe factories	38	795	1938
Leathergoods units	-	279	616

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Source : Terminal report of project DP/INS/78/001,

Mr. Kelleweg's report , 1982.

( The report does not clearly specify what the criteria  
for the respective definitions of large, medium and  
small-scale units are ).

Export of leather and leather products  
from Indonesia  
in value (in million US \$)

	<u>Total leather</u> <u>and leather</u> <u>products</u>	<u>Semi-processed</u> <u>hides and skins</u>	<u>Finished</u> <u>leather</u>	<u>Leather</u> <u>products</u>
1977	19,8	16,8	2,8	0,158
1978	24,6	19,8	4,5	0,255
1979	43,8	34,4	8,5	0,892
1980	31,2	23,0	6,9	1,257
1981	27,3	18,9	6,3	2,066

Source : Laporan Tahunan 1983 / 1984 Keadaan Eksper Imper Kulit  
dan Barang - barang Kulit di Indonesia.  
Tahun 1977 - 1981.

**Indonesian export of leather and  
leather products by country destination  
( in 1982 )**

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<u>Importing country</u>	<u>Total export value (in million US \$ )</u>
Japan	6,2
Italy	6,1
France	4,4
Netherlands	3,3
Federal Republic of Germany	2,3
South Korea	1,3
Spain	1,1
USA	1,0
Other countries ( Australia, Austria, Belgium, Canada, Finland, Greece, Hongkong, India, Malaysia, New Zealand, Norway, Philippines, Portugal, Saudi Arabia, Singapore, Sweden, Switzerland, Taiwan, Thailand, USSR, United Kingdom, Venezuela )	3,1
<b>Total export value :</b>	<b>28,8 million US \$</b>

Source : Central Statistical Bureau of Indonesia.



Import of leather and leather products  
into Indonesia  
(in value, in million US dollars)

	<u>Total leather and leather products</u>	<u>Raw hides and skins</u>	<u>Finished leather</u>	<u>Leather products</u>
1977	2,8	-	0,172	2,6
1978	2,2	0,009	0,153	2,0
1979	2,1	0,046	0,318	1,7
1980	2,4	0,019	0,136	2,2
1981	5,5	0,081	0,116	5,3

Source : Laporan Tahunan 1983 / 1984 Keadaan Ekspor Impor Kulit dan  
Barang - barang Kulit di Indonesia.  
Tahun 1977 - 1981.

Leather and leather products

	<u>Total world imports</u>					
	( in Volume )					
	<u>Importing region</u>					
	<u>World</u>	<u>Western</u>	<u>USA</u>	<u>Eastern</u>	<u>Other</u>	<u>Latinamerica</u>
		<u>Europe</u>		<u>Europe</u>	<u>industrialized</u>	<u>+ Asia</u>
	<u>total</u>			<u>+ USSR</u>	<u>countries</u>	<u>+ Africa</u>
Tanned bovine upper leather (million sq ft)	1143	650	200	190	13	90
Sole leather ( bovine ) (million kilograms)	49,3	37	3	4	5	0,3
Leather from sheep and goatskins (million sq ft)	608	450	35	20	100	3
Leather footwear (million pairs)	881	350	200	300	30	1
Leather products (million articles, equivalent to lady handbag)	159,3	150	5	2	2	0,3

Continued ANNEX X.

Total world imports (in value)  
(in million US \$)

	World total	<u>Importing region</u>				
		Western Europe	USA	Eastern Europe + USSR	Other industrialized countries	Latinamerica + Asia + Africa
Tanned bovine upper leather	1165	700	200	150	15	100
Soft leather (bovine)	171	130	10	10	20	1
Leather from sheep and goatskins	560	380	45	20	110	5
Leather footwear	8140	3900	2000	2000	230	10
Leather products	2685	2500	100	30	50	5
<b>Total value</b>	<b>12721</b>	<b>7610</b>	<b>2355</b>	<b>2210</b>	<b>425</b>	<b>121</b>

Source : CUERECOM (Argentina), No. 8, 1983. The figures given are average annual figures, taken as an average of the years 1980, 1981 and 1982. They serve to give an orientation on the magnitude of world imports of leather and leather products.

Imports of Leather into the United States  
of America in 1982.

Type of leather	Value of imports (in million US \$)	Percentage of total USA consumption by category	
<u>Bovine leather</u>	<u>By category</u>	<u>Sub-</u> <u>totals</u>	
Semi-processed (pickle, wet-blue, crust)	124,5		
Finished	49,3		
Sub - Total		173,8	18,5
<u>Sheep and lamb</u>			
Semi-processed	35,6		
Finished	9,5		
Sub - Total		45,1	57,0
<u>Goat and kid</u>			
Semi-processed	13,1		
Finished	23,4		
Sub - Total		36,5	90,0 (estimated)
<u>Calf and Kip</u>			
Semi-processed	4,5		
Finished	22,2		
Sub - Total		26,7	52,0
<u>Reptile leather</u>			
Semi-processed	3,0		
Finished	20,9		
Sub- Total		23,9	85,0 (estimated)
<u>All other categories</u>			
Semi-processed	23,0		
Finished	19,8		
Sub - Total		42,8	30,0
Grand total :		348,8	

Source : Marketing leather and leather products in the United States of America, by Eliner Talmadge UNIDO consultant, ID/WG.411/8 ,  
7 March 1984.

Imports of Leather Products into the  
United States of America in 1982.

<u>Type of product</u>	<u>Value of import</u> <u>(in million US \$)</u>	<u>Percentage of total</u> <u>USA consumption.</u>
Non-rubber footwear	3,077,4	40,2
Gloves	90,9	65,0
Baseball Gloves	43,4	80,0
Wearing Apparel	252,0	n.a.
Handbags and Purses	409,6	74,0
Luggage and Flat Goods	439,1	46,0
Other Leather Products	164,0	39,0
<hr/>		
Total value of imports	4,476,4 million US \$	

Source : Marketing Leather and Leather Products in the United States of America, by Eliner Talmadge, UNIDO Consultant, ID / WG. 411 / 8, 7 March 1984.

Listing of Visits made during Mission

- Government offices: Regional Industry Department Office for the Province of East Java, Surabaya  
(Director, Ir. H.A. Rachman Karim)
- Regional Industry Department Office for the Province of West Java, Bandung.  
(Ir. Hanafi Wirabrata, Project Coordinator)
- Agency for Industrial Research and Development (BPPI), Jakarta.  
(Mr. Garjito Pringgo Sudirjo, Secretary)
- Department of Industry, Bureau of International Cooperation.  
(Mr. Z. Achmad)
- UNDP: Office of the UNDP Resident Representative, Jakarta  
(Mr. Narasimhan, UNIDO SIDFA; Ms. Nakabayashi, JPO; Mr. Nuryo Martokusumo, Programme Assistant)
- CSFS and MIE's in: Manding, near Yogyakarta, CSFS - leather goods.  
(and several small-scale industry entrepreneurs in each location) Maguwohardjo, near Yogyakarta, MIE - footwear and leather goods.  
Magetan, East Java - tanneries, footwear and leather goods.  
Cibaduyut, near Bandung, CSFS - footwear.  
Bandung, MIE - footwear and leather products.  
Garut, CSFS - tanneries, leather products (including garments).  
Karet Kuningan, Jakarta - 3 footwear workshops.
- Medium-sized and large factories: Budi Makmur Tannery, Yogyakarta.  
PT. KASIN, leather manufacturer, Malang (East Java).  
PT. PAGINA CITA, leather factory, Malang (East Java).  
PT. RACHDINI LEATHER, Surabaya (East Java).  
PT. HAKA SURABAYA LEATHER, Surabaya (East Java).  
BALI MUKTI, shoe factory, Bandung (West Java).

List of UNIDO documents handed to the IRDLAI

- 1). Checklist for Contractual Agreements in the Footwear Sector between enterprises from developed and developing countries, ID/WG.411/1 , 28 December 1983.
- 2). Checklist for Contractual Agreements in the Tanning Sector between enterprises from developed and developing countries, ID/WG.411/2 , 28 December 1983.
- 3). Component and auxiliaries manufacture for the shoe and other leather products industry in the developing countries , by Ferenc Schmel, UNIDO consultant, ID/WG.411/3, 16 January 1984.
- 4). Measures to maximize the potential of the leather and leather products industry in developing countries, ID/WG.411/5 , 21 February 1984.
- 5). The present situation, constraints and prospects for the leather and leather products industry in Sudan, ID/WG.411/6, 24 February 1984.
- 6). Marketing leather and leather products in the United States of America by Eliner Talmadge, UNIDO consultant , ID/WG.411/8, 7 March 1984.
- 7). Regional survey on Asia, by Sanjoy San, UNIDO consultant, ID/WG.411/11, 4 April 1984.
- 8). Regional survey on Africa, by Magne Nestvold, UNIDO consultant, ID/WG.411/12, 6 April 1984.
- 9). Techno-economic study on measures to mitigate the environmental impact of the leather industry, particularly in developing countries, by David Winters, UNIDO consultant, ID/WG.411/ , 20 March 1984.
- 10). Soft leather substitute materials and their impact on the international leather and leather products trade, by Bo Lunden and Ferenc Schmel, UNIDO consultants, UNIDO/IO, 5 October 1983.
- 11). Techno-economic considerations for the utilization of pigskins as an alternative source of raw material for leather and leather products, by David Winters, UNIDO consultant , UNIDO/IO 420, 2 April 1981.

- 12). Feasibility of establishing expert-orientated leather footwear industries in Africa. UNIDO/IOD. 230, 29 November 1978.
- 13). The leather and leather products industry : Trends, prospects and strategies for development, Sectoral Studies Series No. 11, Volume 1, UNIDO IS/442, 17 February 1984, and Volume II, Addendum, a statistical digest , UNIDO IS/442/Add. 1, 21 February 1984.
- 14). Strategies for increasing the production of tanning chemicals in developing countries, UNIDO IS/448/, 24 February 1984.
- 15). Report of the second consultation on the leather and leather products industry, Cologne FRG, 23 - 26 June 1980, ID / 255.
- 16). Report of the third consultation on the leather and leather products industry, Innsbruck, Austria, 16 - 19 April 1984 , ID / 318.
- 17). List of selected UNIDO documents, December 1982.
- 18). Indonesia: Industrial development review series, UNIDO/IS.458, 18 April 1984.
- 19). Information sources on leather and leather products industries, No. 3 ( Revised edition ) , 1979.
- 20). Information sources on the natural and synthetic rubber industry, No. 34, 1979.