

WORKSHOP

Sub-regional workshop on
Environmental Requirements, Market Access/
Penetration and Export Competitiveness for
Leather and Footwear

Bangkok, 19-21 November 2003

PROJECT

Project on Building Capacity for Improved Policy
Making and Negotiation on Key Trade and
Environment Issues

STUDY

DRAFT

Draft Study on Environmental Requirements,
Market Access and Export Competitiveness for
Leather and Footwear in

China

**Building Capacity for Improved Policy Making and
Negotiation on Key Trade and Environment Issues**

**Environmental Requirements, Market Access and Competitiveness
in the Leather and Footwear Sector in China**

1.0 Preamble

This report is completed within the framework of building capacity for improved policy making and negotiation on key trade and environment issues. This is a trade expansion plan formulated by UNCTAD, which is also responsible for its execution. This report mainly deals with some environment and health issues confronted by the Chinese leather and footwear sector in the export market and the strategies to cope with such requirements.

1.1 Objective of the report

The objective of the report is to present objectively the environment and health issues confronted by the Chinese leather industry in the export market through investigation and study of the Chinese leather and footwear industry and also the response of the Chinese government and the industry to these requirements and their adjustment strategies.

1.2 Target of the investigation and study

The main targets of the investigation and study in this report are as follows:

- A. 23 typical large and medium-sized enterprises of China
- B. The first 20 enterprises listed in the 2001 and 2002 export statistical data
- C. China Association of the Leather Industry
- D. Center of standardization laws and statutes of AQSIQ
- E. China inspection and quarantine agencies

1.3 Approach of the investigation and study

The major approach is survey questionnaire, telephone interview and visit to enterprises and relevant departments. The specific numerical value is obtained from the database of relevant departments of the government.

1.4 Framework of the report

A. Introduction to the general conditions of leather and footwear in China

1. A look at China's leather industry from the point of the international export market
2. A look at China's leather industry from the point of the domestic export
3. Characteristics of the leather industry in China

B. Principal exports markets

1. Certifying data
2. Defining major targets

C. Environment and health requirements of major export markets

1. Environment and health requirements of Germany
2. Environment and health requirements of other countries

D. Response of the Chinese leather industry to the requirements of the export market

1. Environmental and health awareness of the leather and footwear enterprises in China
2. Existing information collection mechanisms of China's leather and footwear sectors and response
3. The impact of the environmental and health requirements on the export competitiveness of China's leather and footwear sectors
4. The early-warning system of China's leather industry

E. Strategies of China's leather industry to cope with these environment requirements

1. Basic framework of the state general adjustment strategy
2. Adjustment strategy of China's leather industry

3.0 Introduction to the general condition of leather and footwear in China

3.1 A look at China's leather industry from the point of the international export market

Presently China has already become a major leather production country recognized by the world. On the precondition of observing the "international trade convention on endangered wildlife" and China's "wildlife conservation law", the Chinese leather industry displays three main characteristics: Firstly, it ranks on the top in raw material resources, product yield and import and export trade in the world. The data provided by the China Association of Leather Industry shows that the pigskin and sheepskin raw material resources of China ranks the first and cattle hide the third in the world. Secondly, the output is large. China produces more than ?hundred million square meters of light leather every year, ranking the first in the world and accounting for over 20% of total world output; The footwear output is over 50 hundred million pairs, also ranking the first in the world; the integrated leatherware output is also the first in the world. Thirdly, it earns a large amount of foreign exchange from export. In 2001, major commodity exports of the China's leather industry amount to 124.8 hundred million dollars, being the first in the world.

China is a major leather production and trade power in the world. It is reported that the annual tanned leather in our country is approximately 5 hundred million square meters, accounting for 20% of the total world output; yearly footwear output is about 60 hundred million pairs, accounting for 53% of total world output. China's leather industry is a foreign exchange earning industry. In the last few years, the annual value of exports amounts to 150 hundred million dollars. At present, China's finished leather export accounts for 2% of the total of the world. Various leather product exports account for 9% of the total of the world. Leather shoe export accounts for 15% of the total of the world.

3.2 A look at China's leather industry from the point of the domestic export

China's leather industry is made up of five main sectors i.e. hide manufacture, shoemaking, leatherware, leather garment and fur & fur product together with the complementary sectors of leather chemical engineering, leather machinery, leather hardware and shoe materials. Through continuous construction and development, it has already formed a complete system ranging from production, management and scientific research to personnel training.

In China's leather industry, there are about 16,000 enterprises of certain scale, of which 2300 are hide manufacturing enterprises, over 7200 shoemaking enterprises, over 1700 leatherwear enterprises and over 2000 leatherware enterprises and their employees total over 2 million. In 2001, tanned light leather amounted to 4.6 hundred million square meters, leather shoes and leather travel shoes 20 hundred million pairs and leather garments 70 million. In the same year, the major leather commodity exports of the whole country amounted to 124.8 hundred million dollars, accounting for 4.7% of the total value of export commodities of the whole country. The major leather goods import amounted to 36 hundred million dollars (refer to Table 1).

Table 1 General situation of the leather industry in China

Item	Light leather output (hundred million m ²)	Leather shoe output (hundred million pairs)	Leather garment output (ten thousand pieces)	Major commodity exports (hundred million dollars)	Major commodity imports (hundred million dollars)
2001	4.6	21	7300	128.4	36
1998	2.7	25	6900	97.2	26
Increase %	70	-16	6	32	38

3.3 Characteristics of the leather industry in China

3.3.1 General situation of the leather industry in China

3.3.1.1 General situation

China's hide manufacture industry is the basis for the development of China's leather industry. There are over 2300 hide manufacture enterprises of scale all over the country, of which there are over 400 enterprises above scale as in Note 1. These enterprises employ more than 80,000 people. The private enterprises account for 42% of the total hide manufacture enterprises above scale, collective enterprises 24%, enterprises with foreign investment 23% and state-owned enterprises 11%.

3.3.1.2 Output

In the last 20 years or so, there has been a rapid growth in hide manufacture product output. In 1952, the output of the leather industry in China was only 3.3 million sheets (standard cattle hide sheet as in note 2, the same hereinafter) while in 1978, the annual output reached 26.59 million sheets. After ten years, in 1988, the annual output doubled, being as high as 52.03 million sheets. After another ten years, the output doubled again in 1998, reaching 1.13 hundred million sheets. In 2001, the leather output maintained its growth, amounting to 1.62 hundred million sheets.

China already became a major hide manufacture power recognized by the world. In the world leather industry, China's cattle light leather annual output ranked the third, accounting for 10% of the world total; sheep light leather annual output ranked the first in the world, accounting for 21% of the world total as in note 3; pig light leather output also ranked the first in the world. Light leather is the leading sector in the hide manufacture industry in China, accounting for approximately over 80% of the overall tanned leather production throughout the country.

Table 3 Tanned leather output from 1952 to 2001 (hundred million sheets)

1952	1957	1965	1978	1988	1997	1998	1999	2000	2001
0.03	0.1	0.07	0.3	0.5	1	1.1	1.3	1.43	1.62

3.3.1.3 Condition of the ten major leather production areas in China

The light leather output of the hide manufacturing enterprises above scale in the ten leather production areas of China accounts for 96% of the total output of the hide manufacturing enterprises above scale all over the country. Among them, Zhejiang Province is the largest hide manufacturing province in China, accounting for more than 60% of the light leather output of the enterprises above scale throughout the country, the second one is Hebei Province, accounting for 9.2%.

Table 4 Conditions of the ten major light leather production areas in 2001 (output of enterprises above scale)

S/N	Area	Ten thousand m ²	Percentage %
1	Zhejiang	25305	60.6
2	Hebei	3828	9.2
3	Shandong	2648	6.3
4	Guangdong	1853	4.4
5	Henan	1772	4.2
6	Hunan	1166	2.8
7	Guangxi	1105	2.6
8	Sichuan	961	2.3
9	Fujian	834	2.0
10	Jiangsu	659	1.6
?	Total of the first ten	40130	96.1
	Production capacity of the enterprises above scale	41772	100.0
	Total output of the whole country	45900	

3.3.1.4 Analysis of China's light leather market

In 2001, the aggregate demand of China's light leather market was about 5 hundred million square meters, a major increase as compared with 1999. The domestic production was 4.6 hundred million square meters, the export was about 0.6 hundred million square meters and the import was about 1 hundred million square meters. Cattle hide accounted for over 70% of the 1 hundred million square meters of imported light leather.

Categorization of the light leather market demand in China:

- Vamp leather accounts for 40% or so of the total leather usage (predominantly cattle hide);
- Clothing leather accounts for 45% or so of the total leather usage (predominantly pigskin and sheepskin);
- Other leather uses account for 15% or so of the total leather usage.

3.3.1.5 Condition of finished leather imports and exports in China

In China's leather manufacturing industry, there has been an increase year after year in the import trade volume of finished leather in the past twenty years while the export trade has been fluctuating around 3 hundred million dollars. In the last three years, there has substantial increase in the leather export trade volume, which means that China's leather manufacturing industry has begun to participate in the international leather trade and its international competition capability is increasing constantly. Conditions of finished leather imports and exports of China are in Table 5 and 6.

.Table 5 Condition of finished leather imports of China in 2001

	Quantity (ton)	Value (thousand dollars)	Percentage of finished leather imports(%)	Increase and decrease of the volume of imports as compared with the same time of last year (%)	Increase and decrease of the value of imports as compared with the same time of last year (%)
Cattle hide	179569	1510375	63.1	8	-1
Other leather	40938	64848	2.7	-21	-5
Total	726774	2393415	100.0	6	0

There was a slight reduction in finished leather import in 2001 as compared with the antecedent year and the value of imports was 20 hundred million dollars, a decrease of 1%. The import volume equaled that of the antecedent year. The finished leather import was still mainly cattle hide.

Table 6 Condition of finished leather exports in China in 2001

	Quantity (ton)	Value (thousand dollars)	Percentage of finished leather imports(%)	Increase and decrease of the volume of exports compared with the same time of last year (%)	Increase and decrease of the value of exports as compared with the same time of last year (%)
Cattle hide	84236	543381	60.6	64	50
Half tanned cattle hide	16606	52417	5.8	23	41
Blue wet cattle hide	35963	54492	6.1	29	58
Half tanned sheep leather	209	3665	0.4	661	1737
Sheep leather	1951	63340	7.1	213	271
Half tanned goat skin	368	3627	0.4	20	55
Safflan leather	3915	36860	4.1	163	159
Blue wet pigskin	2474	4107	0.5	2234	2297
Pig leather	13157	126776	14.1	94	109
Other leather	2000	8101	0.9	-3	-11
Total	160880	896767	100.0	55	67

There was a substantial increase in the finished leather export in 2001 and the export amounted to 9 hundred million dollars. The export volume and value increased respectively by 55% and 67%. The increase of export value was greater than that of export volume. The skin leather export was mostly cattle hide. Cattle hide, blue wet cattle hide and half tanned cattle hide accounted for 72.5% of the finished leather exports. The export volume and value increased respectively by 48% and 50%.

4.0 Principal export markets

The principal export markets of Chinese leather and footwear goods center around the developed countries such as US, European Union and Japan. The export to developing countries mainly focuses on West Asia and Africa as well as South American countries. On the basis of the table of leather and footwear export volume and value of Jan. to Aug. of 2003 (provided by the information center of the General Customs Administration of PRC) and by statistics, in this study, we have selected US, Germany and Japan as the targets for developed country market research and Vietnam as the target for developing country market research.

Table 4-1 Volume and value of export of leather product

Unit:dollar

Country of destination	August		Accumulative total of Jan. to Aug.	
	Quantity	Value	Quantity	Value
502 US	104,820,128	329,186,871	823,323,810	1,870,053,107
304 Germany	23,222,930	53,422,398	198,875,460	386,704,157
116 Japan	48,284,706	88,851,172	399,487,733	602,716,135
141 Vietnam	246,556	1,940,240	15,354,003	27,472,071

Table 4-2 Volume and value of export of footwear leather

Unit:dollar

Export ranking	Country of destination	August		Accumulative total of Jan. to Aug.	
		Quantity	Value	Quantity	Value
1	502 US	115,916,478	421,829,119	1,075,302,908	3,552,242,747
2	116 Japan	33,154,445	89,091,839	286,454,674	711,479,741
3	304 Germany	3,403,748	4,533,595	21,451,978	35,314,414
4	141 Vietnam	2,008,429	1,507,202	12,168,100	17,815,278

5.0 Environment and health requirements of major export markets

5.1 Environment and health requirements of Germany

The environment and health requirements of Germany point out that the ecological problems relating to shoes are primarily caused by the leather treating process. The production and manufacture of leather can bring about quite severe ecological problems, including air and water pollution, nasty smell and the discharge and disposal of other toxic substances. In addition, protection of the consumers also draws attention to the use of PCP in some leather goods (lining of leather). The use of such carcinogenesis dyes as azo dyes and benzidine dye and formaldehyde can cause damage to health.

5.1.1 Laws and statutes

Germany has made a series of laws and statutes regarding environmental and health requirements about leather and footwear such as azo dyes. This is a new "Green barrier" erected by the European Union. The European Union points out in its mandate that the blue pigments used in dyeing possesses very high toxicity and is difficult to degrade and it will pollute the environment through waste water as well as affecting the physical health of the operating workers, therefore it must be added to the "azo dye blacklist" drawn up by the European Union last year.

Azo is a sort of chemical used by the dye enterprises in dye processing. Research shows that the skin will absorb a small quantity of the dye after long-term exposure to textiles using azo dyes, which can cause pathological changes to the skin and induce cancer. As early as 1996, Germany of the European Union forbade the use of such dyes in textile leather and other goods that contact physically with the skin. Henceforth, Holland and other European Union countries began to follow suit.

On September 11 last year, the European Union published its sixtieth mandate of 2002, prohibiting the use of 22 types of tetramino - diphenyl based azo dyes and stipulating that the content of the above 20 types of azo dyes in relevant products sold on the European Union markets that are produced by the European Union or imported from third countries cannot exceed the limit of 30PPM (30 parts per million).

The laws and statutes related to leather especially shoes are similar at least in part to the laws and statutes of Germany on textile and clothing. With respect to leather products, the most important is the legislation about the prohibition of production, use and sale of PCP executed in 1989 in accordance with the hazardous substance mandate. For imported products, this prohibition prescribes a limitation of 5 mg/kg whereas the European Union limitation of PCP in products is very low, e.g. 1000mg/kg.

The hazardous substance mandate also urges that the risk must be made known to the consumer if the content of formaldehyde in products exceeds 1500mg/kg.

From April 1, 1996, shoes made with the hazardous azo dyes are forbidden to be produced or imported and enter the German market (General consumption law). The mandatory footwear labeling mandate of the European Union (94/11/EEC) has already been brought under the fourth amendment to the General consumption law of Germany. It stipulates that the label on the footwear products sold in Germany must indicate the materials (leather, hypheniderm, natural or synthetic imitation and others) used in the following shoe structures, surface material, inside lining and leather inner pad as well as movable insole.

On January 6, the EU Committee issued the third mandate of 2003, requiring the general ban on the use of blue pigments in the process of dyeing textile and leather goods. At the same time it prohibited the sale of textiles, clothing and leather goods using this kind of coloring agent on the EU markets. This mandate will take effect on June 30, 2004.

This EU prohibition mandate is actually a supplement to the mandate issued in September last year banning the use of carcinogenesis azo dyes, which is to say EU will soon implement the general ban on import from third countries and sale on the EU markets of textiles, clothing and leather goods with azo dyes.

5.1.2 Standards

In February 1999, EU published its eco-labeling standard for leather and footwear with its main contents as follows:

1. the average concentration of residues of Chromium (VI) in the final product is not to exceed 10 ppm;
2. no residues of arsenic, cadmium or lead are to be found in the final product

(previously small residues of these substances were permitted);

3. the amount of free and partially hydrolysable formaldehyde should not exceed 75 ppm (for textile components) or 150 ppm (for leather components);
4. tannery waste water should contain less than 5mg Chromium (III) per litre (previously, no such requirement was applicable);
5. pentachlorophenol and tetrachlorophenol should not be used (previously, no requirements were applicable to tetrachlorophenol);
6. no azodyes that cleave to any of the 22 aromatic amines set out in the eco-label criteria should be used;
7. certain N-nitrosamines should not be detected in rubber footwear components (previously there was no such requirement);
8. another new provision dictates that C10-C13 chloralkanes are not to be used in leather, rubber or textile footwear components;
9. the use of volatile organic compounds during the final assembly of footwear is not to exceed the limits specified;
10. footwear is not to contain PVC (this is also a novel requirement);
11. footwear is not to contain any electrical or electronic components;
12. cardboard packaging for footwear is to be made of 80% recycled material, and plastic packaging out of 100% recycled material;
13. the footwear must meet certain durability criteria specified by the Commission.

Applicants for the eco-label are also requested on a voluntary basis to provide information on the energy consumption in the manufacture of footwear.

In Holland, the footwear manufacturers and importers can apply for the Dutch official environmental labeling. As a general rule, the label may appear one day on the German market. In order to give a conceptual impression of the Dutch eco-criteria, Tale 2 presents a brief summary of the Dutch criteria.

Table 2 Standard for the Dutch footwear eco-labeling

- 90% of the gross weight must be made up of the following materials: leather, rubber, synthetic materials and cotton (softwood or wood may be used if its total weight doesn't exceed 3%).
- Footwear covers regular shoes, sandals, dancing shoes, sneakers and shoes with protective functions.
- The specification takes into account especially raw materials (energy source usage, listed coloring agent and additive), synthetic leather facing and inner lining material (release of VOC), production (provision for the use of glue) and leather underlayer (replaceable insole and waterproof insole).
- Apart from the above-mentioned labeling activities specifically related to footwear, some labeling programs of Germany also give detailed provisions or suggestions, which are summed up as follows:

Table 3 Voluntary guide on leather products of Germany

	oko-100	SG-Schadstoffgeprüft	Oko-info leder	Leder umwelt-gerecht	Schadstoff ergestellt
Aromatic amine	prohibited	prohibited	max.30mg/kg	prohibited	max.30mg/kg
Chlorophenoles	no requirement	1.0mg/kg	no requirement	no requirement	1.0mg/kg
PCP	0.5mg/kg	1.0mg/kg	<5.0mg/kg	<5.0mg/kg	1.0mg/kg
Extractible chromium	2.0mg/kg	no requirement	?20	no requirement	no requirement
Sexavalent chrome	prohibited	prohibited	prohibited	prohibited	prohibited
Lead	1.0mg/kg	0.8mg/kg	1.0mg/kg	prohibited	0.8mg/kg

5.2.3 Other voluntary activities and observable trend

In order to satisfy the environmental and health requirements of Oko -tex 100 for leather and footwear and the requirements of European eco-labelling for leather, German importers provided the leather export countries with the specific limitation on the harmful chemical substances in leather and published the list of harmful dyes and unharmed dyes.

5.2 Environment and health requirements of other countries

In the survey of the first 20 enterprises in the 2001 and 2002 export statistical data, it is found that, among the four major export destination markets of China's leather and footwear industry - Germany, US, Japan and Vietnam, each enterprise is more aware of the German environmental and health requirements. Yet it is universally known that other countries have less relevant environmental and health requirements. Our exports to Vietnam are mostly semi-finished products or raw materials, which are processed by the importers of Vietnam and the finished products are then exported mainly to Europe, US and Japan. Therefore, the environmental and health requirements of Vietnam about leather and footwear are formulated according to those of these three countries. The environmental and health requirements of US, Japan and Vietnam about the leather and footwear are generalized as follows:

Only leather whose four chemical indices closely related to ecology are lower than the limitation requirement can be accepted by the European Union and the above three countries. These four chemical indices are: sexavalent chrome, forbidden azo dyes, pentachlorophenol and free formaldehyde.

Forbidden azo dyes: There are over 2000 kinds of azo dyes in production and about 150 of them are listed as forbidden azo dyes. At present the international code lists 20 kinds of detectable forbidden azo harmful to the human body, which generally exist in dyes. On September 11, 2002, the European Union issued the decree of general ban on azo with the deadline being September 11, 2003, after which time, relevant products found to contain the forbidden azo on the Euromarket or in the above three countries will meet with rejection or even antidumping.

Sexavalent chrome: Chromium plays an important role in tanned leather and can make the leather soft and resilient, therefore it is a sort of indispensable tanning agent. Chromium exists in two valent states: trivalent chromium and sexavalent

chrome. Trivalent chromium is not harmful to people, yet the hexavalent chrome resulting from its oxidation under certain conditions is a sort of carcinogenic substance harmful to the human body. The generation of hexavalent chrome is mainly related to technology. The leather manufacturers of some countries (such as Italy and Spain) have worked well in chrome treatment. Although they also use the tanning agents with chromium, they can best control the specific technological operation. It is almost impossible to detect hexavalent chrome.

Pentachlorophenol: Pentachlorophenol is a sort of imperceptible substance impossible to be felt as well as a necessary ingredient for hide manufacture. It generally acts as corrosion protection. After the corrosion protection process, if not disposed properly, its residue will remain in the leather products, causing harm to the life health of people.

Formaldehyde: Formaldehyde is widely used as the antiseptic substance and hide manufacture additive. If it is not cleared thoroughly, the free formaldehyde will cause many diseases. For instance, at a concentration of 0.25ppm, it will stimulate the eyes and affect the schneiderian membrane. Long time contact with formaldehyde is likely to result in blindness and throat cancer. Thus there is strict decree to limit it not only in Europe, starting from January 1, 2003, China also exercises general ban on formaldehyde exceeding the standard and requires the formaldehyde content not to exceed 75mg/kg.

6.0 Response of the Chinese leather industry to the requirements of the export market

6.1 Environmental and health awareness of the leather and footwear enterprises in China

The first 20 enterprises in the 2001 and 2002 enterprise export statistical data are listed as the key targets of the investigation and study. The objective is to learn about the enterprises' awareness of the environment and health requirements of the principal export markets. The investigation and survey findings are shown in Table 3:

Enterprise	Name of the requirements of the export market	Scope of the requirements of the export market	Formulation of the preparatory standards of the export market	Formulation of the international standard	Formulation of the national standard
Aware	5	3	0	3	15
Generally aware	7	12	5	5	5
Not aware	8	5	15	12	0

From the table, we can see that on the average the leather and footwear enterprises of China are generally aware of the formulation of national standards and the scope of the requirements of export market. Over half of the enterprises have some knowledge of the name of the requirements of the export market. They are least aware of the formulation of international standards and export market preparatory standards.

6.2 Existing information collection mechanisms of China's leather and footwear sectors and response

6.2.1 From the telephone interview of the first 20 enterprises in the 2001 and 2002 export statistical data, we learn that the principal channel of the enterprises for acquisition of information are as follows:

- I. China Association of Leather Industry;
 - II. Corresponding overseas websites;
 - III. Active participation in international leather workshops and relevant activities;
- The investigation and study findings show that all the 20 enterprises have adopted (as their main channel for acquisition of information, 5 of them adopt) for acquisition of information and another 5 of them adopt ? for acquisition of information. To sum up the above, it is readily seen that the China Association of Leather Industry is the main channel of the leather and footwear enterprises for the acquisition of information.

6.2.2 For this reason, from investigation of the China Association of Leather Industry we learn that it collects its information mainly through the following channels:

1. Active participation in the activities of international organizations. China Association of Leather Industry is a member of the Asian Leather Council, has joined in six international organizations and takes the chair of two international organizations. Three relevant international conferences have been held in China. Furthermore, it has translated into Chinese the No 6 and No 7 international contracts with a history of 70 years in the world and has won the right for the Chinese version to be applicable internationally as an equivalent to the English version, thereby increasing the status of China in the international leather trade.
2. It collects the technical laws and statutes, technical standards and conformity assessment procedures of other countries through China's TBT/SPS consultation offices and the Center of Standardization Laws and statutes of AQSIQ.
3. It collects information about the foreign technical barriers confronted in leather and footwear export from large key export enterprises or typical enterprises.
4. Through domestic enterprises, i.e. domestic production enterprise, it collects information about the impact and influence of imported products on the development of the industry.
5. It acquires information from government administrative organizations, such as inspection and quarantine agency, customs, standardization bodies, certification bodies, industrial and commercial administrative agencies, consumers association and overseas embassies.
6. It also acquires information from scientific research institutes, associations and overseas offices.

6.2.3 The China Association of Leather Industry mainly issues information to the enterprises by the following 4 methods:

1. Setting up the China leather net, including the five major columns of market information, industry information, genuine leather labeling, domestic and foreign exhibition and productivity and environmental protection.

2. Sending the Association's journal "leather information" free of charge to each leather enterprise in China every month, reporting on the latest international and domestic industry trends.
3. Sending supply and demand information, domestic and foreign price quotations and irregular market analysis reports by electronic mails through the China leather net regularly every week.
4. Organizing periodically technical and business trade exchange between the enterprises and domestic and foreign manufacturers.

6.3 The impact of the environmental and health requirements on the export competitiveness of China's leather and footwear sectors

There are many environment and health requirements made by export market on Chinese leather and footwear sectors. The most prominent is the EU requirement. EU forbids the use of azo dyes for the simple reason of environmental protection and protection of the health of the consumers. Yet, once the EU prohibition mandate is issued, its impact and scope are in no way simple.

The EU mandate on the prohibition of use of some azo dyes involves a great number of products, including clothing, yarn, weft, bedclothes, towel, wig, hairpiece, hat, diaper, sleeping bag, glove, handbag, slip-cover for chair, purse, suitcase, watchband, footwear, textile and leather toy as well as toys with textile or leather clothing etc.

Theoretically the EU mandate "treat equally without discrimination" and the same standard and requirement apply to the EU countries and non-EU countries. Yet relevant enterprises of EU countries have basically already abandoned the use of azo dyes whereas a large number of the Chinese enterprises with a great deal of their leather product exported to EU are still using azo dyes. So the new standard has a great impact on China's leather export. Mr. Xiao Mingxiang of the commercial department of China's mission in EU told us that China's annual export of leather to EU amounts to about 100 hundred million dollars. Once the EU prohibition is put into effect, the impact and influence on Chinese leather product are self-evident.

While we recognize the reasonableness of the EU prohibition for environmental protection and protection of consumer health, we cannot but observe that the EU prohibition greatly benefit such large companies as BASF of Germany that produce environmental protecting reactive dyes. Although there are hundreds of dye producing enterprises in China, over 60% of the environmental protecting reactive dyes market is controlled by such major foreign companies as BASF. Their product price is several times that of domestic enterprises.

The greater worry is that even though quite a few Chinese enterprises also produce dyes free of azo, due to the limitation of technical level, the performance of the dyes produced by them is not stable enough. In this way, in order to retain the EU market, the leather export enterprises cannot but import dye at high prices. But once imported dyes are used, the original price advantage of the leather of China will be in a critical situation.

6.3.1 Telephone interview of the first 20 enterprises in the 2001 and 2002 export statistical data

Eighteen of them have not been affected by the environment and health requirements of the export market. Two of them have been affected but without loss of market share or other major impact yet. In addition, we have also surveyed three small businesses, finding that the state of impact on them is entirely in contrast to

that on the other 20 enterprises. All three of them have experienced heavy losses due to the environment and health requirements of the export market.

6.3.2 Further investigation and study discovers the causes for the above conditions as follows:

The first 20 enterprises are all large and medium-sized export enterprises. They not only develop high-tech quality products to ensure that their products are always in a leading position of the industry and guarantee the execution of the famous brand strategy, but also spend large sums of money on introducing advanced foreign technologies and equipment, periodically invite domestic and overseas technical specialists, implement standardized management ranging from product technological design and production monitoring to finished product testing, closely follow the environment and health requirements of the export market, keep in close contact with the industry association and international leather organizations, pay close attention to the latest trends of the industry both home and abroad at all time and adjust the response strategy inside the enterprises at the proper time and forecast in advance the trends of the industry and the issuance of relevant standards. Therefore, they can respond readily to the environment and health requirements of the export market and actively change or improve their production technologies to adapt to new demand.

For instance, Hebei Fangyuan Co., Ltd, which is a large-sized well-known enterprise in the leather industry in China. It has passed the ISO 9000 and ISO 14000 system certification. It exports mainly to Italy, US and England and its major exports are semi-finished products. Since the issuance of the EU mandate on the prohibition of the use of harmful azo dyes, it has spent 1.3 million Yuan in improving its production technology. It has also implemented overall quality supervision and strengthened field management at every link including production operation, storage to after service and enforced standardized management ranging from product technological design and production monitoring to finished product testing. These measures have greatly increased the product cost in terms of chemical materials. However, this has not affected the benefit of the enterprise, for it is just because of the adoption of these advanced production technologies and appropriate enterprise internal adjustment, the enterprise, while increasing the retail price of semi-finished products, has won a bigger market share. Therefore although the enterprise has suffered some impact, there has been no substantial affect.

The causes for the heavy losses on the three small businesses are out-of-date production equipment, backward technology, faulty operation and management, little awareness of domestic and foreign standards, laws and statutes and technologies, lack of funds for introducing advanced production technologies and the poor information in every respect. So, these small businesses will be confronted with a situation difficult for them to respond to when the new environment and health requirements of the export market are issued and will ultimately be eliminated from the market.

6.4 The early-warning system of China's leather industry

The China Association of Leather Industry has also set up an industry early-warning system for making proactive responses to the technical trade barriers. For instance: in 1994 China Association of Leather Industry registered the certification trademark -

--- genuine leather mark at the State Administration of Industry and Commerce and simultaneously this trademark was internationally registered in 14 other countries including Germany, the international registration number being 705857, so that the domestic leather manufacturing industry gets onto the track of international requirements.

After China's entry to WTO, with the decrease in tariff barriers, the non-tariff barriers -technical trade barriers are gradually becoming the major obstacles to the leather and leather product export of China. To this end, the China Association of Leather Industry proactively collects information about internationally technical trade barriers. After 7 years of preparation, it developed the executive plan of "genuine leather mark and eco - leather", which was put into operation on July 1, 2002. "Genuine leather mark and eco-leather" is a general term referring to the different kinds of finished leather qualified for using the certification trademark "genuine leather mark". Such finished leather has to meet the requirements and relevant provisions of "specification for genuine leather mark and eco-leather products" in addition to satisfying corresponding present state and industry standards. It highlights the requirements for the four particular chemical indices (formaldehyde, pentachlorophenol, sexavalent chrome and azo dyes) that are likely to exist in leather and are related to ecological environment.

China Association of Leather Industry published the test methods for the four particular indices in the "specification for genuine leather mark and eco - leather products" by directly adopting the German DIN series standards. At present the test methods for the four particular indices of leather and technical requirement standards are internationally led by Germany. Therefore, the standard level of "specification for genuine leather mark and eco - leather products" has already got onto the track of international advanced stage.

Following Germany, EU already adopted the mandate on the prohibition of the use of some azo dyes in textiles and leather on September 11, 2002. Therefore, introduction and implementation of the "genuine leather mark and eco - leather" program is a preventive measure and has the competence of proactively confronting the challenge of technical trade barriers. At the same time, the government has also invested large sums of money in the research for establishing environment technical trade measures and strategies and early warning project programs aimed at the possible environmental requirements of foreign countries directed against our country.

7.0 Strategies of China's leather industry to cope with these environmental requirements

7.1 Basic framework of the state general adjustment strategy

Establish and perfect the environmental legislation standard system, i.e. to promote the integration of our national environmental standards into international standards, formulate the environmental standards and industrial policies appropriate to our country and overcome the trade barriers;

(1) Upgrade the general green competitiveness of Chinese enterprises, i.e. to strengthen science and technology and develop the green industry; reinforce the strength of the enterprises and advocate cleaner production; to implement the ISO

14000 environmental management series standards. These are the effective measures for coping with the green barriers.

(2) Establish the market operation mechanism in line with WTO rules, i.e. to set up the government green purchase mechanism; to be fully aware that the key to upgrade competitiveness is the enhancement of environmental protection performance.

(3) Set up the early-warning system

7.2 Adjustment strategy of China's leather industry

1 - Strengthen the leather industry through science and technology and improve the quality of the whole industry

- Unite with local associations, utilize the funds of UN projects and organize enterprises to participate in various training both home and abroad.
- Improve the leather technology and design and training of management talents through different channels, set up the encouragement mechanism favorable to the growth of the talents and exertion of their roles and enhance the overall quality of the whole industry.

2 - Implement the famous brand strategy and carry out the genuine leather mark work

- Conduct frequent sample check of the labeled enterprises.
- Cultivate and assist the design system and information center of the leather industry, implement the famous brand strategy and develop domestic and foreign markets.

3 - Expand the pluralized market and advance towards the world

- Strengthen the exchange with the World Leather Association and societies of commerce and be aware of the new trends of green barriers at any time.
- Select internationally influential leather exhibitions, organize scaled Chinese exhibition halls and give full play to such halls for expanding external influence and further enlarging the foreign markets.

4 - Strengthen environmental protection to ensure the sustainable development of the leather industry

- Select from the existing hide manufacture sewage regulation projects of the whole country 3 fairly good ones for cultivating model type enterprises by use of the UN leather environmental protection projects and introduce these models in the whole country in order to promote the successful development of the leather environmental protection.
- Select 4-5 specialized wholesale markets (leather city) with the necessary conditions and located at the origin of production for strengthening rapid growth and make them the leaders of the industry development and promote the long-term development base of the leather industry.
- Mainly assist the large-scale leather factories, help them introduce advanced technology and equipment from abroad, encourage the proper division of labor among the enterprises within the industry and gradually form the standardized and assembling production.