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STUDY

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

Bangladesh

Country Case Study on Environmental Requirements for Leather and Footwear Export from Bangladesh

Prepared for UNCTAD, Geneva

By

Dr. Moinul Islam Sharif

Khandaker Mainuddin

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BANGLADESH CENTRE FOR ADVANCED STUDIES

House # 10, Road # 16/A, Gulshan-1, Dhaka-1212, Bangladesh
Telephone: 8851237, 8851986, 8852217, Fax: 8851417
E-mail: info@bcas.net Website: www.bcas.net

Leather Sector of Bangladesh: A Case Study

Introduction

Leather is a traditional export item of Bangladesh. Hides and skins produced in the country enjoy a good reputation worldwide for their quality. The country, however, has had little success in realizing the potential export earning from the sector. The business community and trade experts believe that export earnings from the sector could be substantially increased if the hides and skins are transformed into high-quality leather and leather products. This, however, depends on adoption of appropriate policies on the part of the government and business community to develop the sector. The products must be improved to satisfy the quality requirements demanded by the consumers of the international market especially of the developed world. Potentials for future export growth is considered to be high provided that product diversification and quality improvement can catch up with the international standard. The low wage rate and poor enforcement of environmental laws and rules have given the country's leather sector a comparative advantage in the world market. Moreover, the country enjoys duty exemption under the GSP (Generalized System of Preference) from most the importing countries of the developed world.

Bangladesh has adopted an export-led growth strategy for its economic development. It is therefore an imperative for the country to maintain a sustained growth of export to accelerate the pace of development and alleviation of poverty. The trend of globalization with the formation of the World Trade Organization (WTO) and the integration of the world trading system under its rules and regulations has been accompanied by a reduction of tariff and other no-tariff barriers. While this provides an opportunity for a country like Bangladesh to boost its export, new challenges involving health and safety, environmental and social issues are increasingly linked to trade and market access.

In addition to product quality and standards, good environmental and social practices would ensure better market access. International standard like ISO are being promoted by the WTO. The international trade related agreements such Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Messures (SPS) allow the member countries to set their technical regulations and voluntary standards for importable goods and services. The Leather sector of

Bangladesh which has a good potential for export has to address and comply with the international standards as well as environmental and social issues through good housekeeping in the domestic industry. It may be noted that other key export sectors like garments and shrimp are also gradually adopting the international standards to ensure the sustainability of export. The realization of the export potential of the leather sector depends on how well the sector can respond to those international standards through a concerted efforts of the business community, exporters and the government.

Leather Sector in the Economy of Bangladesh

The Leather sector plays a significant role in the economy of Bangladesh in terms of its contribution to export and domestic market. Bangladesh currently produces about 20.0 million sq. meters of leather and leather goods per year. The total production of leather and leather goods shows an increasing trend over the years. Beginning with the 1993/94, the production increased from 14.60 in 1993/94 million sq. meters to 15.90 million sq. meters in 1995/96. It fell to 11.95 million sq. meters in 1996/97. Since 1996/97, there has been a steady increase in the production of leather and leather goods which reached 19.91 million sq. meters in 2000/2001. The following table shows the production of leather and leather goods in the country.

Table-1 : Production of Leather and Leather Goods

Year	Unit (Million Sq. Meter)
1993-94	14.60
1994-95	15.00
1995-96	15.90
1996-97	11.95
1997-98	12.12
1998-99	16.21
1999-2000	18.31
2000-2001	19.91

Source: Bangladesh Economic Survey, Ministry of Finance, 2002

The quantum index of leather and leather goods production increased to 131 in 1998/99 compared to the base year (1988/89=100) and that of leather footwear production rose to 193 for the same period. It is therefore evident that leather is increasingly being used in the production of footwear. The following table shows the trend of production of leather and leather footwear during the 1990/91 through 1998/99 period.

Table-2: Quantum Index of Leather and Leather Goods and Leather Footwear (1998/89=100)

Year	Production Index	
	Leather and Leather Goods	**Leather Footwear**
1990-91	84.34	100.03
1991-92	92.97	100.07
1992-93	108.72	110.93
1993-94	123.44	139.48
1994-95	126.77	161.76
1995-96	133.85	174.46
1996-97	100.84	185.95
1997-98	102.25	123.17
1998-99	136.72	192.84

Source: Statistical Year Books of Bangladesh 1997, 1999, Bangladesh Bureau of Statistics

Export of Leather and Footwear

Bangladesh earned 288 million US dollar from the export of leather and leather footwear in the year 2000/2001. The total export earning of the country for the same year stood at 6.47 billion dollar. In other words, leather and footwear accounted for about 4.5 percent of total export of the country. The share of leather sector in the total export declined over the years. The Leather sector now contributes less than 5% to the total export compared to 7% about a decade ago. The trend of total export of leather and footwear for the past half a decade is shown in the following table.

Table-3 : Export of Leather and Footwear

(Value in million dollar)

Year	Total Export	Leather and Footwear export	Leather and Footwear as % of Total Export
1997-98	5161.20	232.89	4.51
1998-99	5312.86	218.89	4.12
1999-2000	5752.20	246.35	4.28
2000-2001	6467.30	287.56	4.45
2001-2002	5986.09	255.82	4.27

Source : Export Promotion Bureau of Bangladesh (EPB)

Till 1980, leather export was mainly composed of hides and wet blue. Since then, crusts, finished leather products have, to some extent, replaced hides and blue leather. The share of leather products compared to leather is small but it rose significantly over the years. It increased from 2.07% in the year 1990/91 to 18.06% in the year 1997/98.

Export Market of Leather and Footwear

Leather and leather products are exported to different countries of the world, the major importing countries are Italy, Japan, Hong Kong, Spain, Germany, UK and USA. More than 30% of the leather is exported to Italy followed by Hong Kong (26.97%), Japan (7.77%) and Spain (5.38%). The share of leather export to Italy increased from 20% in 1997/98 to over 30% during the period upto 2000-2001. Leather export to Japan has remained around 6 to 8% during the past half a decade.

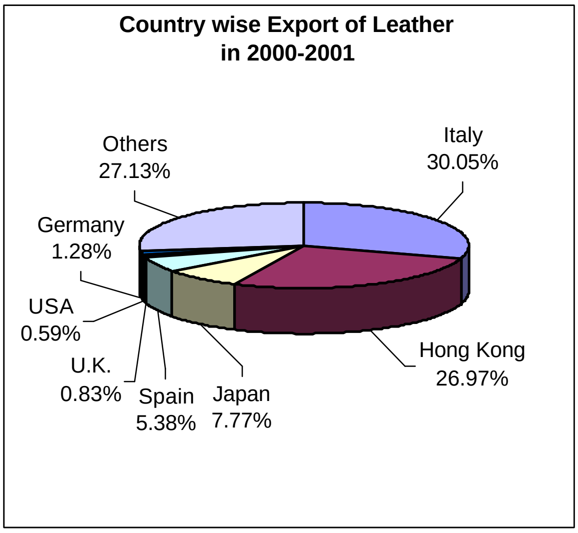
Table-4 : Country wise Export of Leather

(Value in 000 Dollar**)**

Countries	1997 – 1998		1998 – 1999		1999 – 2000		2000 – 2001	
	Value	% of Total	Value	% of Total	Value	% of Total	Value	% of Total
Italy	38176	20.07	38372	22.81	46820	24.00	76326	30.05
Hongkong	66939	35.18	54854	32.60	68179	34.96	68490	26.97
Japan	12690	6.67	12460	7.41	11989	6.15	19739	7.77
Spain	10420	5.48	10416	6.19	9584	4.91	13652	5.38
U.K.	370	1.99	4482	2.66	3470	1.78	2111	0.83
USA	1828	0.96	1642	0.98	1267	0.65	1497	0.59
Germany	3470	1.82	3977	2.36	3283	1.68	3246	1.28

Others	56367	27.83	42044	24.99	50.484	25.87	68867	27.13
Total	**190260**	**100.00**	**168247**	**100.00**	**195046**	**100.00**	**253928**	**100.00**

Source: EPB Export Statistics, 2000 – 2001, 1998 – 99, Page : 78,70



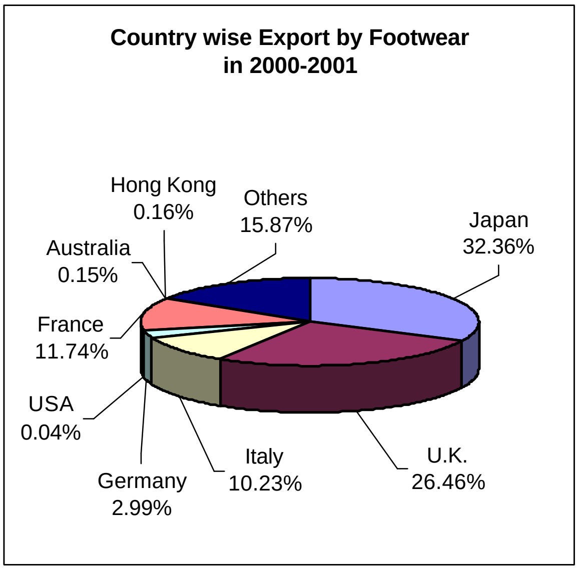
With regard to the export market of footwear, Japan is the largest importer of footwear from Bangladesh. Export of footwear to Japan increased from 25.78% in 1997 to 32.36% in 2000/2001. The UK has emerged as the second largest importer of Bangladeshi footwear and its import increased from 7.40% in 1997/98 to 26% in 2000/2001. Apart from Japan and UK the other major importers of footwear are Italy and France.

Table-5 : Country wise Export of Footwear

(Value in 000 Dollar)

Countries	1997 – 1998		1998 – 1999		1999 – 2000		2000 – 2001	
	Value	% of Total	Value	% of Total	Value	% of Total	Value	% of Total
Japan	9800	25.78	10713	23.01	9913	20.54	10881	32.36
U.K.	2812	7.40	8618	18.51	7285	15.10	8897	26.46
Italy	8400	22.10	8114	17.43	11809	24.47	3440	10.23
Germany	3562	9.37	6744	14.49	1145	2.37	1004	2.99
U.S.A.	453	1.19	271	0.58	714	1.48	15	0.04
France	4541	11.94	3879	8.33	5779	11.98	3948	11.74
Australia	24	0.06	24	0.05	327	0.68	49	0.15
HongKong	7	0.02	-	-	498	1.03	54	0.16
Others	8418	22.14	7989	17.6	10788	22.35	5341	15.87
Total	**38017**	**100.00**	**46552**	**100.00**	**48258**	**100.00**	**33629**	**100.00**

Source: EPB Export Statistics, 2000 – 2001, 1998 – 99, Page : 110, 102



Unit Price in Export Market

The unit price per square-feet of leather was marked by a rising trend for the period 1992/93 through 1996/97. The unit price increased from 1.07 dollar/sq. ft. in 1992/93 to 1.52 dollar/sq. ft. in 1996/97. The price went down to 1.49 dollar the following year, 1997/98 and fell drastically to 0.90 dollar/sq. ft. in 1998/99.

The price then picked up to 0.99 dollar/sq. ft. in 1999/2000 and 1.20 dollar/sq. ft. in 2000/2001. However, the price is still lower compared to highest price level of mid-nineties. The volume of leather production increased from 139 million sq. ft. in 1992/93 to 161 million sq.ft in 1994/95 and declined from 1996/97 through 1997/98. However, it has increased since then. The volume of leather products exported increased to 211 million square feet in 2000/2001. A negative correlation between unit price and volume exported is evident over the decade.

Table-6 : Leather (Value, Volume, Unit Price)
(1992-93 to 2000-2001)

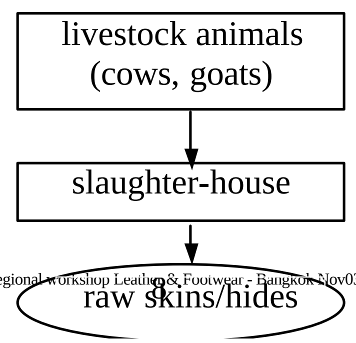
Year	Value (Mn Dollar)	Volume ('000 Sft)	Unit Price (Dollar / Sft
1992 – 93	147.91	138630	1.07
1993 - 94	168.17	157430	1.07
1994 – 95	202.08	161660	1.25
1995 – 96	211.70	155810	1.36
1996 – 97	195.48	128610	1.52
1997 – 98	190.26	127690	1.49
1998 – 99	168.24	186930	0.90
1999 – 2000	195.05	197020	0.99
2000 – 2001	253.93	211610	1.20
Total	**1732.82**	**1465390**	**10.85**

Source: EPB Export Statistic 1998-99

FDI (Foreign Direct Investment) registered with the BOI (Board of Investment) shows that leather sector has drawn little attention compared to other sectors. Investment in this sector from 1995 through 2001 is only 50 million US dollar and it accounts for only 0.46% of total FDI registered with BOI.

Production Process of Leather

The production of leather involves a range of activities starting from collection of raw hides from slaughter houses scattered over the country. The process involves salting, liming, deliming, chrome tanning and finishing. The detailed flow diagram is as follows.



There are at present 207 leather processing tannery units in Bangladesh (Bangladesh Finished Leather and Leather Goods Exporters Association). Prior to 1972 i.e., during the pre-independence period there were 70 such units of which 35 were large or medium and the rest 35 were cottage to small tanneries (Alam, N, 1998). The medium and large units were engaged in wet blue processing for export while the small ones used to produce low-grade finished leather for domestic market or process wet blue for big tannery units. Most of the medium and large units were abandoned by their non-Bangladeshi owners after the independence of the country. The government took over these abandoned tannery units under the nationalization programme. The nationalised units were, however, disinvested to the private entrepreneurs during the late seventies and early eighties.

According to Bangladesh Finished Leather and Leather Goods Exporters Association (BFLLEA), about 88% of the tanneries (183 out of 207) are located at Hazaribag area in the south-west part of Dhaka, the capital city on the bank of the river Buriganga. Ten units are located in the port city of Chittagong and four units in the outskirts of Dhaka. The remaining 10 units are scattered in other cities/towns of the country. Besides, there are some small scale unregistered units about which not much is known.

Environmental Issues

The National Environmental Management Action Plan (NEMAP) study has identified the leather industry as more harmful to the environment than the textile, medicine, fertilizer and paper industries. The tanneries at Hazaribag in Dhaka discharge huge quantities of effluents to the nature without treatment. The liquid waste goes to the river Buriganga (Alam, 1998). This has been a common practice for more than three decades. Fish resources are adversely affected in a few hundred meters of the river impacted upon by the tanneries. The pollution is not limited to the surface water as it also contaminates the under ground water apart from the atmospheric pollution through foul odor. Annual consumption of different chemicals in the tannery industry include 3500 tons of sodium sulfide, 3400 tons of calcium oxide (lime), 6000 tons of (basic) chromium sulfate, 723 tons of ammonium chloride, 350 tons of dye-stuff and other chemicals including fungicide, sodium chloride etc. in small quantities (Alam, 1998).

About 200 tons of solid waste is generated per day during peak season and 75 tons during off-peak season from the tanneries of Hazaribag (Huq, E, 1997). The solid waste largely contains pieces of raw hides, and small portion of lime fleshings. While some quantity of solid waste like shaving dusts are used for making leather board, a significant portion is left every day on the roadside and in the nearby dustbins causing foul odor to the surrounding area.

The Dhaka City Corporation's garbage trucks partly remove the waste to the landfill sites. The open drains around Hazaribag sometimes get clogged and overflows because of waste accumulation into the drains.

Tannery workers are the worst sufferers and endure a hostile environmental condition. Workers usually handle chemicals with open hand and do not wear any gloves. The workers suffer from various health problems and illness like skin diseases, diarrhea, jaundice, fever, kidney problems etc. The residential areas close to the tanneries are susceptible to different environment related problems. Residents near the Hazaribag tannery are exposed to higher morbidity and mortality compared to people living 2 to 3 km apart (Huq E, 1997). Land, housing, etc near the Hazaribag tannery are valued low compared to similar properties in the neighbouring areas owing to poor environmental condition. Even the importers often express their reluctance to visit the tanneries due to the prevailing unhygienic condition.

There is a general apathy to the seriousness of the tannery related environmental problems from the concerned quarters including the government. Several studies were undertaken to mitigate the environmental problems arising from the tanneries (Alam, 1998). The studies are as follows :

1. Study by the Netherlands Government (1987)
2. Study by the Asian Development Bank (1990)
3. The UNIDO study, 1992
4. The UNIDO study, 1997

There has been no significant attempt to implement the actions suggested by these studies. The Government was willing for the past ten years to shift the tanneries from Hazaribag to some other desolated locations to minimize the adverse impacts on the city environment and people. But this could not be materialized due to resistance from the tannery owners. The government has also decided to set up a pilot Effluent Treatment Plant (ETP) at Hazaribag with funding from UNDP.

In a very recent development theExecutive Committee National Economic Council (ECNEC) of the Government of Bangladesh has allocated funds for redeployment of tanneries from Hazaribagh to a selected site, near Shavar about 30 km from Dhaka. The funding for the shift will be jointly borne by UNIDO and the Government of Bangladesh. The implementation agency for the shift is Bangladesh Small and Cottage Industries Corporation (BSIC) under the Ministry of Industries. The Ministry has recently formed an advisory body from different institutions including representation from the Bangladesh Centre for Advanced Studies (BCAS). The advisory body will oversee and supervise development of the infrastructure, including the construction of a Central Effluent Treatment Plant (CETP).

Environmental Regulations

The Environmental Conservation Act 1995 (ECA) and the Environmental Conservation Rules 1997 (ECR) provide for regulatory measures concerning industrial waste and pollution. Besides, the Factory Act 1965 and the Factory rules 1979 are directed to regulate industry related environmental problems. The Department of Environment (DoE) headed by the Director General (DG) under the Ministry of Environment and Forest is the regulatory Body responsible for enforcing the ECA’95 and ECR’97. As per provisions of the ECA’95 and ECR’97 all new and existing industrial units are obliged to apply for an Environment Clearance Certificate (ECC) from the DoE. For the purpose of granting ECC, industrials units are classified into four categories depending upon their environmental impact. The four categories requiring a gradually higher level of regulations are :

- Green
- Orange A
- Orange B
- Red

Leather processing (tannery) is classified in the red category and requires detailed Environmental Impact Assessment (EIA) including Effluent Treatment Plant (ETP) and Environment Management Plan (EMP) for ECC from the DoE. The regulatory body, DoE, however, lacks the institutional and technical capabilities to deal with the tannery related environmental problems.

Stakeholders

The stakeholders include different groups having various degrees of interest in the leather sector or are impacted upon by it. The owners of leather processing and manufacturing units, producers of leather goods, the workers and employees and the exporters are the key stakeholders. While a great majority of the tannery units are owned by the private sector, a few units belong to multinational companies and the government. Four tannery units are owned by multinational companies About seventy thousand employees and workers including technical, semi-skilled and non-skilled persons are directly employed in the leather sector and half-a-million are engaged in procuring skins and hides from slaughter houses across the country. Suppliers of chemicals and other inputs also constitute an important stakeholders group. Local banks play an important role in financing the leather industry. Many residents around the tanneries are not at all benefitting from the sector. Different government agencies and departments including the Bangladesh Export Promotion Bureau (BEPB), the Ministry of Commerce, the Ministry of Industries are also linked to the leather sector. BEPB serves the sector through providing information to the exporters and helps in arranging trade fairs, communication between local exporters and foreign buyers. The various Ministries play their respective roles mostly in policy affairs.

NGOs

NGOs so far have not played any significant role in environmental and other affairs of the leather sector. International agencies and donors, however, have often been involved in environmental and technical aspects of the industry. The Asian Development Bank (ADB), UNIDO, the Netherlands and Germany have given financial and technical assistance to mitigate the environmental problems of the Hazaribag tannery area and for promotion of leather and leather products. NGOs like BRAC and Proshika have undertaken credit programmes targeting the poor of the Hazaribagh area.

Relevant Issues

The new export policy of Bangladesh and the Country's Fifth Five Year Plan (FFYP 1997-2002) have identified leather and leather products industry as one of the thrust sectors to receive priority. While quality improvement, upgradation of technologies, incentives for investment in the leather sector are emphasised in the development plan and export policies, the issues of pollution control and labour standard have been largely overlooked. The tannery owners, who reap the lion share of the benefits, are not much concerned about the problem. However, the withdrawal of child labour from the garments sector and the introduction of hygienic and safety measures in the shrimp industry under pressure from the USA and the EU countries seem to be an eye-opener for the leather exporters about the trade related social and environmental issues. Apprehension is now gradually increasing among the producers of leather and leather products that their failure to comply with acceptable environmental and labour standard may lead to major obstacles to their exports in the future.

Lack of training and trained personnel are a major constraint to efficiency improvement in the sector. Large tannery units hire qualified leather technologists from India, Italy and Pakistan. A training programme has recently been launched with assistance form the German Association of Technical Cooperation (GTZ) to improve the quality of finishing, dyeing and designing of leather and leather products. However, significant improvement is needed in the skill of butchers engaged in skinning the animals in the slaughter houses. Skinning is generally done in a crude method causing deterioration in quality, size and shape of the leather. As a consequence, local leathers are offered at lower-price in the international market causing a loss in foreign exchange earnings.

The small scale tanneries find themselves as a disadvantaged group in respect of access to bank loan and foreign buyers. They have to depend on the intermediaries/middlemen and large tanneries for export of their products. The small units also find it difficult to modernize their units due to lack of capital and qualified trained personnel.

Bangladesh is mainly dependent on the EU countries specially Germany, the UK and Italy for chemicals and dyes used in leather processing. India also supplies a significant quantity of chemicals. Two local companies are producing basic chromium sulphate and can satisfy about 50% of the total demand.

Importing countries of leather and leather products have overwhelming control over the processing technologies. Germany and other EU countries have already stopped importing leather and leather products processed with azo-dye which is identified as harmful to skin and human health. The use of Chromium Sulphate has also been put into the list of harmful chemicals because the Chromium Sulphate which is initially trivalent but gets oxidised if left open to atmosphere to hexavalent chromium which is carcinogenic. The substitute chemicals, however, are costlier and reduce the competitiveness and profit margins of the local industry.

In order to popularise the local leather and leather products to foreign importers, the Bangladesh Finished Leather and Leather Goods Exporters Association (BFLLEA) for the first time organized an international leather fair in Dhaka in January, 1999 in collaboration with the Bangladesh Export Promotion Bureau (BEPB). Bangladeshi leather exporters sometimes participate in other international trade fairs to orient themselves with international standards and quality of leather products. Holding of such international trade fairs on a regular basis could help the industry to boost trade and improve product quality and standards.

The growth of leather industry and leather exports is constrained due to the short supply of animals. Inadequate infrastructural facilities including electricity, gas and water, are a major impediment to the sector. An inefficient banking system, lack of modern port facilities and congestion also affect the export business of leather.

Although from time BFLLEA to time raises various demands to the government such as reduction in bank interest rates, exemption of various duties and taxes, short term operating loan and long term loan for purchase of capital equipment, it is yet to come up with any effective plan and programme for sustainability of trade. There is no significant attempt on the part of the exporters and producers to raise the efficiency level of workers and to improve the factory environment. Efforts to solve the problems of the small units through cooperative approach are virtually nonexistent. The small scale units have limited access to financial and other resources and are exposed to more business risks and failures compared to their large counterparts.

Global Leather, Footwear & Leather Goods Trades

Hides & Skins

The supply of hides and skins, the basic raw material of leather, footwear and leather goods industries depends on the rate of slaughtering of animals, which in turn depends on the demand of meat and the livestock population. The world livestock population, according to latest survey as shown in table-8 is 3259.30 million heads. Bangladesh having 59.81 million heads shares about 1.84% of the world population.

Table-8 : Livestock population of the world (in million)

	1995-97 Average	**1998**	**1999**	**2000 pre lest**
BOVINE World Total	**1486.9**	**1495.4 (0.57%)**	**1500.7 (0.35%)**	**1509.6 (0.59%)**
Developing Countries	1126.5	1156.0 (2.62%)	1169.0 (1.12%)	1182.4 (1.15%)
Developed Countries	360.4	339.4 (-5.83%	331.7 (-2.21%)	327.2 (-1.36%)
SHEEP World total	**1073.6**	**1056.1**		
Developing countries	652.4	661.8 (1.44%)	671.2 (1.42%)	674.9 (0.55%)
Developed Countries	421.2	394.3 (-6.39%)	389.2 (-1.29%)	389.5 (0.08%)
GOATS World Total	**676.7**	**696.0 (2.85%)**	**708.8 (1.84%)**	**715.3 (0.98%)**
Developing Countries	645.2	665.5 (3.15%)	679.3 (2.07%)	686.2 (1.02%)
Developed Countries	31.5	30.5 (-3.1%)	29.5 (-3.28%)	29.1 (-1.36%)
World Grand Total	3237.2	3247.5	3269.9	3259.3

Source: Leather International, July 2001

**Figures in parenthesis are the rates of increase/decrease of growth*

Depending on livestock population and slaughtering rate, the trend of hides & skins production in developed and developing countries is shown in table-9

Table-9 : Production of Hides and skins (000 tones)

	1995/97	1998	1999	2000	Bangladesh Share (2000)
BOVINE HIDES AND SKINS World Total	**5594.2**	**5664.4 (1.25%)**	**5698.7 (0.61%)**	**5806.0 (188%)**	**45.68 (0.78%)**
Developing Countries	271.9	2910.2 (7.08%)	2962.8 (1.81%)	3048.7 (2.90%)	10,50%
Developed Countries	2876.4	2754.2 (-4.25%)	2735.9 (-0.25%)	2757.4 0.79%)	
SHEEPSKINS World total	**396.9**	**390.9 (-1.51%)**	**394.7 (0.90%)**	**393.9 (-0.90%)**	**0.55 (0.14%)**
Developing Countries	202.7	192.3 (-5.13%)	190.5 (-0.94%)	186.9 (-1.89%)	
Developed Countries	194.2	198.6 (2.27%)	204.2 (2.82%)	207.0 (1.37%)	0.27%
GOATSKINS World Total	**219.7**	**235.2 (7.06%)**	**239.6 (1.87%)**	**242.7 (1.29%)**	**16.36 (6.74%)**
Developing Countries	207.1	222.9 (7.63%	227.5 (2.06%)	230.6 (1.36%)	7.09%
Developed Countries	12.6	12.3 (-2.38%)	12.1 (-1.63%)	12.0 (-0.83%)	

Source: Leather International, UK, July 2001

**Figure in parenthesis are the rates of increase/decrease*

The above two tables show that:

- Livestock population is increasing gradually in developing countries but decreasing in developed countries.
- Production of hides & skins is decreasing in developed countries but increasing in developing countries which indicates less slaughtering in developed countries due to less demand of meat.
- Global production of hides & skins is continuously increasing for the past decade.
- Major categories of hides and skins are 1) Bovine cattle and calf, 2) sheep and lambs, 3) goats and kids, 4) pigs.

Major source of hides & skins

The principal sources of bovine hides are the meat markets in North America, Europe, Australia, and Latin America. The former Indian subcontinent (India, Pakistan and Bangladesh) is also a significant source of cattle hides, but the quality is not up to international standards. Sheep skins are sourced mainly from Europe, New Zealand, Australia, Iran, and Sudan. Goat skins are supplied largely by developing countries including Bangladesh. The main source of pig skins is China.

The recovery of raw hides and skins in most major meat markets for bovine, sheep, and goat hides and skins is almost 100 cent percent. However, only 10 percent of pig skins are recovered due to the fact that: meat cuts of pork often include skins. The hand-skinning of pigs is difficult and costly; pig carcasses are generally scalded prior to butchering to meet hygiene standards, thus rendering the skins unusable.

Demand and supply of raw hides & skins

Both the supply of and demand for raw hides and skins are characteristically inelastic with regard to price. On the supply side, suppliers, the slaughter houses and other similar operators produce hide and skins only as by-product to their meat producing operations. In most industrialized nations, revenues from the sale of hides and skins represent five percent of total revenues earned by slaughterers. There exists an incentive for large-scale producers for proper treatment of hides and skins and arrange for timely transportation to tanneries and buyers. Large-scale meat production also fosters research in animal farming, yielding larger animals and subsequently hides and skins, which in turn yield higher values. However, despite the revenues generated from production of raw hides and skins, the sale of hides and skins remains a secondary, indirect activity of the meat market.

Given the high degree of dependence between the meat market and the supply, the availability of hides and skins worldwide is influenced strongly over the short-term by fluctuations in animal slaughter rather than fluctuations in animal populations. The price of meat is the influential determinant affecting annual slaughter of animal. However, over the medium to long-term, animal population is the main factor affecting the availability of bides and skins. In developed industrialized countries, animal population and production of hides and skins have decreased during the past decade due to the fall in demand for beef on account of significant dietary changes. In developing countries, however, the livestock population and the supply of hides and skins are increasing with the expansion of animal farming and increase in slaughtering rate.

In aggregate, developed countries export bovine hides (with the exception of New Zealand and Australia), while developing countries export mostly sheep and goat skins (with the exception of Argentina). The United States supplies an estimated 30 percent of the world market for all types of hides and skins, while European countries are substantial importers.

Demand for Leather

The demand of finished leather has a higher degrees of price elasticity than the demand for raw hides and skins by tanneries. Leather is principally used by footwear, leather goods, upholstery and leather garments manufacturing industries. The primary factors that determine the use of leather in leather products are; availability of leather of sufficient quality and type; prevailing price of leather; and the traditional preferences of specific markets for the products. Typical leather products like luggage, small leather goods, briefcase, handbag, travel goods, etc., in many cases, are manufactured from non-leather materials or leather substitutes depending on market demands. In the footwear sector, many components are being produced from alternative materials. Soles and lining, for instance are made of leather, textile fabric, plastic, or other synthetic material. Many shoes and sandals today are manufactured from synthetic materials. About 35% of the footwear made in developed countries are from non-leather materials, which is as high as about 85% in developing countries. The distribution of leather and non-leather soling materials in footwear production in India, one of the major footwear manufacturers and exporters in South-East Asia and the share of leather in global leather goods manufacture are shown Table-10 and Table-11. However, leather substitutes are more common among lower-end products rather than in higher end costly items.

Table-10 : Utilization of soling materials in Indian footwear production

Material type	Production in percentage	1987	Percentage Change
PU?	5%	6%	20%
PVC	19%	25%	32%
Rubber	35%	28%	-20%
TPR?	20%	24%	20%
Leather	15%	10%	-33%
Other	6%	7%	17%

Source: Exporters' directory, Indian Council for Leather Exports.

Table-11 : Use of leather in global leather goods manufacture

	Product Groups	Products	Made of leather (in %)
i)	Hand bags	Handbags with and without shoulder strap	27
ii)	Small leather goods	Wallets, purses, billfolds, key pouches, cigarette cases, tobacco pouches	30
iii)	Briefcases	Briefcases, attache cases, portfolios, school bags	20
iv)	Gloves	Fashionable and special sports gloves	100
v)	Belts	Waist belts, shoulder belts.	70
vi)	Travel goods	Bags, rucksacks, sports bags, toilet and body bags	2
vii)	Suitcases	Suitcases, trunks, vanity or beauty cases	4
viii)	Others	Shopping bags, tool bags, jewelry or cutlery boxes, map cases, binocular computer, camera, musical instrument phone holster cases.	6

Source: Exporters' directory, Indian Council for Leather Exports.

The use of leather in manufacturing footwear uppers has been slightly increased over the past several years. Leather continues to be the dominant and most popular material for producing dress shoes, children's school shoes, and medium-to-high end gents' and women's shoes. In the less expensive range of footwear items, synthetic and textile materials are used more frequently than leather. However, in the casual men's footwear category, leather continues to be the principal material.

With the increased use of leather in manufacturing footwear uppers during recent years, there has been a decreased use of leather in less noticeable components of footwear. For instance, the use of leather for footwear soles has been declining consistently since the 1980s with the increased use of the rubber, PVC and TPR. Man-made materials are clearly replacing natural materials in the production of footwear soles. In addition, other footwear components, such as toe puffs, insoles, mid-soles, white thermo plastic have gained popularity among manufacturers for producing toe puffs and counters. Manufacturers feel that the use of such materials have substantially improved the quality and consistency of their products.

Overall, the use of leather for footwear components other than uppers is likely to continue to decline. Soles, in particular, will be made primarily from synthetic materials, with only high priced footwear containing leather soles.

Global Trends of Footwear Trade

Global production of footwear has expanded moderately in the past several years, spurred primarily by production in newly industrialized Asian countries. 1 Global production of all types footwear has surpassed 12 billion pairs per year. The Asian and middle Eastern region accounts for more than 52 percent of the total production, while Eastern and Western Europe produce 17.8 and 11.8 percent of the total volume of production, respectively. South and North America produce less than 10 percent each. The largest six producers in terms of volume are China, Russia, Brazil, Thailand, South Korea and India. East Asian production capacity has expanded dramatically during last decades displacing producers in OECD countries.

The principal exporting countries are dominated by Asian and EC producers. Export growth from Asian producers over the past several years has been principally absorbed by EC countries and USA which have registered import surges in all major member markets. EC countries individually export on average 60 percent of production, though the majority of exports are intra-regional.

Consumption of footwear, depending upon economic strength varies widely between developed and developing countries. The United States is by far the major consumer of footwear followed by EU countries, Japan, Austria, Czechoslovakia, and Romania. Per capita consumption of footwear in few selected countries is shown in table-12.

The principal importer of footwear, with more than 1305 million pairs import per annum is USA. The EC nations, Germany, France, United Kingdom, Italy, and the Netherlands are also major importers, together importing more than 830 million pairs per year.

Leather Footwear

Leather footwear represent approximately 33 percent of the total footwear market in volume terms. The use of leather in global footwear production has n increased in recent years, especially among OECD producers. Global production of leather shoes is reported to be more than 3.2 billion pairs. Five countries – Russia, Italy, China, India, and the USA are producers of over 43 percent of world leather footwear, together accounting for about 1,548 million pairs.

Table-12 : Per capita footwear consumption in few selected countries

Country	Leather footwear	Total
USA	2.4	5.5
France	2.4	5.8
Switzerland	4.1	6.0
Belgium	2.5	4.9
Austria	2.5	5.1
U.K	2.3	5.1
Netherlands	2.3	4.1
Denmark	2.4	4.7
Germany	2.4	5.5
Romania	2.2	4.5
Bulgaria	2.0	4.2
Norway	2.4	3.8
Sweden	2.3	3.8
Finland	2.0	3.8

Source: EPB Export Statistics, 2000-2001, 1998-99

The principle exporters of leather footwear are Asian, European and Latin American countries. Export growth among Asian producers has, however, outpaced EC export growth in during the last decade. The majority of exports from European countries are destined for other European countries, while exports from East Asia are absorbed by Western Europe and North America, Brazil has proven to be a dominant leather footwear exporter within Latin America, with 70 percent of production in volume terms oriented toward the U.S. market alone.

The United States is the world's largest single market for both total and leather footwear. The import of USA was 1,305 million pairs including more than 505 million pairs of leather shoes in 1999. The EC as an aggregate market recorded total import volume of 413 million pairs in 1988, though much of the activity represents, again, internal trade among member countries. Russia and Canada are also significant importing nations, recording 68 and 23 million pairs, respectively, while Hong Kong recorded 29 million pairs, almost all for re-export.

Although many nations experience high levels of import volume of leather shoes, consumption figures (representing domestic production plus imports less exports) indicate that most imports in some countries are re-exported to other consuming markets. East Asian producers, for instance, typically record high import levels, though countries such as South Korea, Taiwan, Province of China and Hong Kong re-export most of their imports. On the other hand, industrialized countries in North America and Europe consume most imports of leather footwear. The United States consumed 592 million pairs of leather shoes in 1988, while only domestically producing 11 million pairs. Individually, EC countries consume a majority of intra-EC produced products, though increasingly East Asian leather shoes as well.

In aggregate, however, EC countries have maintained a positive trade balance in leather footwear, exporting 11 percent more leather shoes in volume terms than importing. However, the historic annual trade surpluses in leather footwear, as measured in volume terms, have been eroding since 1980s. The average price per pair of shoes produced in the EC is significantly higher than elsewhere, particularly in comparison to products from East Asia. In the case of the EC, the value of exports relative to value of imports indicates a strong trade position. The dominant intra-EC exporter is Italy, though increasingly Spain and Portugal are capturing greater shares of EC and other international markets. The global production, trade and consumption of footwear; production in EU member states, imports, exports and consumption by EU member states; major exporters to EU member states and import of footwear by USA along with source are shown in table-13, table-14, table-15, table-16 and table-17 respectively.

Table-13 : Global production, trade and consumption of footwear

(Million of Pairs)

Country	Production	Exports	Imports	Consumption
European Community	749.00	459.90	412.80	701.90
Non-EC West Europe	29.50	18.60	75.90	86.80
Eastern Europe	728.30	126.00	82.60	648.90
North America	178.50	14.90	1,305.26	668.90
South America	286.20	141.80	2.90	147.40
Australia	21.50	5.20	9.80	26.10
Asia and Middle East	1113.70	410.20	55.90	759.40
Africa	122.20	25.70	12.00	108.50
Total Global	**3228.90**	**1202.20**	**1157.20**	**3183.90**

Source: Complied by TSG from World Footwear Markets 1990, SATRA.

Table-14 : Production of footwear in EU member states

(Million of Pairs)

	1992		1993		1994	
Country	**Leather**	**Total**	**Leather**	**Total**	**Leather**	**Total**
Italy	288.7	418.8	312.1	451.7	310.0	455.0
Spain	130.0	193.7	125.3	185.5	120.5	180.0
France	76.4	159.7	73.8	154.5	70.0	150.0
U.K.	44.6	110.8	45.4	112.7	43.0	110.0
Portugal	91.0	106.2	91.1	101.2	86.5	96.0
Germany	54.6	65.0	46.7	56.3	42.0	50.0
Greece	10.7	12.0	8.8	10.0	8.0	9.0
Netherlands	4.6	5.7	5.1	6.4	5.0	6.5
Denmark	3.3	5.5	3.0	5.5	3.0	5.5
Belgium/Luxem	1.5	3.2	1.0	2.3	1.0	2.0
Ireland	1.0	1.9	0.6	1.0	0.5	1.0
Total	**706.4**	**1082.5**	**710.9**	**1087.1**	**689.5**	**1065.0**

Source: Center for promotion of imports from developing countries – A survey of the Netherlands and other major markets of EU, 1996, compiled by ***Searce,*** *1999.*

Table-15 : Imports, exports & consumption of footwear by E.U. members states

Million Pairs

Country	**1992**	**1993**	**1994**	**Consumption**	
	Import	**Import**	**Import**	**1993**	**1994**
Belgium/Lux.	77.8	83.7	85.1	49	49
Denmark	24.5	26.6	26.8	23	23
France	241.2	235.8	1886.0	322	338
Germany	381.8	391.8	386.3	394	378
Greece	22.1	120.6	126.9	31	31
Ireland	26.4	32.2	261.6	15	15
Italy	151.7	117.5	141.2	168	166
Netherlands	113.6	116.2	145.0	55	55
Portugal	14.8	15.2	14.6	23	24
Spain	38.7	37.1	42.7	127	124
U.K.				242	248
Austria	N/A	N/A	N/A	22	22
Finland	N/A	N/A	N/A	18	18
Sweden	N/A	N/A	N/A	31	31
Total E.U.	**194.6**	**182.4**	**217.1**	**1520**	**1520**

Source: *Center for promotion of imports from developing countries – A survey of the Netherlands and other major markets of EU, 1996, compiled by* ***Searce,*** *1999.*

Table-16 : Major exporters of footwear to EU member state

Million Pairs

Country	**1992**	**1993**	**1994**
China	293.3	301.7	316.9
Indonesia	86.0	86.6	105.5
Vietnam	12.3	32.7	61.5
Thailand	70.0	61.1	55.5
India	14.7	18.5	21.1
South Korea	55.0	30.5	20.6
Taiwan, Province of China	37.1	21.6	18.1
Brazil	24.6	23.3	18.0
Hong Kong	9.9	15.2	17.3
Romania	5.0	9.2	15.2
Philippines	11.2	11.7	11.9
Morocco	7.2	8.4	9.3

Source: *Center for the promotion of imports from developing countries, a survey of the Netherlands and other selected markets in the European Union, compiled by* ***Searce,*** *1999.*

Table-17 : Imports of footwear by USA during 1995-1999 and their sources
<u>(in "000" pairs)</u>

Country	1995	1996	1997	1998	1999
Brazil	96,239	91,601	89,686	82,385	83,777
Canada	1,654	2,090	1,804	1,485	1,587
Dominican Rep.	1,983	4,586	9,132	8,044	6,436
Mexico	9,754	16,732	23,582	19,410	3,262
France	1,037	823	985	1,262	1,212
Germany	2,575	2,356	2,868	3,167	3,446
Italy	44,961	49,528	52,568	47,711	46,484
Portugal	4,080	3,215	3,265	3,359	3,925
Spain	22,147	21,764	24,206	22,247	17,895
UK	3,576	4,533	6,623	6,885	6,930
China	716,009	750,944	842,110	895,142	984,847
Hong Kong	11,534	7,946	10,222	6,655	7,165
India	6,909	7,254	7,566	5,880	6,549
Indonesia	70,512	67,129	67,668	59,226	63,340
Korea	15,438	10,066	8,738	9,277	6,580
Philippines	10,079	8,397	8,027	6,188	1,976
Sri Lanka	1,866	1,738	1,609	1,624	1,361
Taiwan, Province of China	20,711	17,845	19,127	13,679	12,562
Thailand	23,214	17,620	17,788	18,642	18,759
Vietnam	284	808	2,934	3,444	3,274
Balance of world	14,888	11,888	12,659	14,119	13,895
Total	**1,079,450**	**1,098,863**	**1,213,167**	**1,229,831**	**1,305,262**

Source: Center for the promotion of imports from developing countries, a survey of the Netherlands and other selected markets in the European Union, compiled by ***Searce,*** *1999.*

Countries within Eastern Europe recorded relatively low levels of importance in relation to total consumption levels, with the noted exception of Russia which imports almost entirely from other countries in Eastern Europe. In fact, Russia absorbed 85 percent of their exports. However, several small Central and Eastern European products have developed significant export capacity in respect to domestic industry size. Yugoslavia, in particular, currently exports nearly 65 percent of its production.

Leather footwear statistics for countries in East Asia and the Middle East indicate a wide divergence in trade patterns. China, India, Indonesia, and Thailand having a high domestic capacity to produce both for domestic consumption and export. On the other hand, South Korea and Taiwan, Province of China produce principally for Hong Kong consumers approximately the same volume of footwear products as they produce domestically though a significantly higher volume of goods passes through Hong Kong in transit to other end markets. Australia and New Zealand trade principally with countries in East Asia, and have domestic industries supplying 85 and 47 percent of apparent consumption, respectively.

The largest producers of leather footwear utilizing mechanized factories in Africa appear to be Egypt, Morocco, Tunisia, Cameroon, and Nigeria. Only Morocco and Tunisia are substantial exporters in relative volume terms. In total, mechanized production of leather footwear items in Africa is more than 125 million pairs.

Total output of leather footwear in developed countries has declined since 1988s and production in these countries has been characterized by a shift from non-rubber products to rubber and synthetic fabric footwear production.

Global trends of Leather goods trade

There has been a gradual increase in global demand of leather goods with the population growth along with the rise in standard of living particularly in developing countries. The global production of leather goods is estimated to be more than 2,116 million tones. The major producers are EU countries. China, India, USA, Indonesia, Pakistan, South Korea, Thailand and Vietnam. USA, EU countries, Japan etc. focus on in high quality production. Demand of leather goods depends upon the price, quality of the product, fashion, design and style. This demand is influenced not only by rising per capita income, but also by the increase in leisure time and interest in travel, outdoor activities and indoor sports. Shares of import of the major markets are shown in table-18 below.

Table-18 : Shares of import in total consumption of the major markets (in %)

Product	**EU countries**	**Japan**	**USA**	**Hong Kong**	**Others**
Leather handbags	25.5	23.6	21.1	17.8	20
Pocket articles and handbags	24.5	40.5	10.9	16.2	7.9

Source: EPB Export Statistics, 2000-2001, 1998-1999

Imports of leather goods by USA and EU countries, the major consuming countries, are shown in table-19 and table-20.

Table-19 : Import of Leather goods by USA during 1995-1999.

Imports in US$ (Fig. In "000")

	Product	**1995**	**1996**	**1997**	**1998**	**1999**
i)	Gloves including leather And non-leather	290,559	294,549	308,699	284,172	258,387
ii)	Sports gloves (leather)	206,946	182,828	186,268	194,257	171,902
iii)	Leather garments	989,402	909,598	976,731	937,469	1,015,746
iv)	Handbags & purses	960,425	1,044,973	1,051,797	1,018,120	1,019,785
v)	Luggage & flat goods	2,306,283	2,392,925	2,769,769	2,947,793	3,120,699
vi)	Others products	587,690	555,275	448,343	454,229	473,435
	Total	**5,341,305**	**5,380,148**	**5,741,607**	**5,836,040**	**6,059,954**

Source: EPB Export Statistics, 2000-2001, 1998-1999

Table-20 : Import of Leather goods by EU countries during 1995-1997

Imports in US$ (Unit = $ 1,000)

Country	1995	1996	1997
Germany	1,226,361	1,215,274	1,222,277
France	770,292	838,849	894,220
United Kingdom	614,263	768,088	880,012
Italy	284,347	335,851	449,594
Netherlands	268,272	321,907	329,944
Belgium	276,735	310,991	346,928
Spain	181,695	221,720	258,981
Austria	192,055	196,611	185,320
Sweden	148,324	157,583	155,467
Denmark	100,065	105,297	115,315
Greece	40,635	58,128	72,148
Finland	42,815	51,775	64,275
Portugal	45,738	56,512	65,728
Ireland	35,233	40,675	53,882
EU TOTAL	**4,226,830**	**4,679,262**	**5,094,091**
Intra-EU	1,456,128	1,647,500	1,650,939
Extra-EU	2,770,702	3,031,762	3,443,152
Developing countries	**2,209,843**	**2,433,873**	**2,767,221**

Source : Center for the promotion of imports from developing countries, a survey of the Netherlands and other selected markets in the European Union, compiled by ***Searce,*** *1999*

More than 55% of the EU total leather goods imports is sourced from developing countries. EU imports mainly consist of low-medium end markets leather, initiation leather, plastic, textile made handbags, briefcases, suitcases, travel goods and small leather goods from developing countries. The major exporting countries are China, Vietnam, India, Pakistan, Thailand, South Korea, Indonesia, Turkey, Philippines, Morocco and Tunisia. Imports of leather goods by EU countries during 1995-1997 are shown in Table-21.

Table-21 : EU import of leather goods from developing countries

Imports in US$ (In 1,000)

Country	1995	1997	1997
China	1,686,316	1,909,825	2,164,192
Italy	277,844	286,206	309,811
Vietnam	72,920	93,990	138,407
Pakistan	81,562	84,992	92,768
Thailand	75,100	76,607	76,107
South Korea	64,362	55,811	53,427
Indonesia	35,216	34,992	45,951
Turkey	26,493	22,137	28,656
Philippines	13,552	14,408	22,050
Morocco	24,978	21,019	21,476
Tunisia	26,129	22,088	20,993
Others Countries	58,943	56,600	65,321

Source : Center for the promotion of imports from developing countries, a survey of the Netherlands and other selected markets in the European Union,, compiled by Searce, 1999

The consumption of leather goods in developed countries, and the top suppliers can be seen in table-22 and table-23.

Table-22 : Consumption of leather goods in developed countries.

	1995		**1996**		**1997**	
	Volume	**Value**	**Volume**	**Value**	**Volume**	**Value**
Total	34,068	268,272	38,301	321,907	38,350	329,944
Intra-EU	5,016	59,256	4,945	65,163	5,245	59,570
Extra-EU	29,052	209,016	33,356	256,744	33,105	270,374
Dev. Countries	11,451	80,508	15,940	102,368	16,331	113,982

Source : Center for the promotion of import from developing countries, a survey of the Netherlands and other selected markets in the European Union, compiled by ***Searce,*** *1999.*

Table-23 : Top five suppliers of leather goods.

`000' Dollars

	1995	1996	1997
	Value	**Value**	**Value**
China	1,686,316	1,909,825	2,164,192
Italy	429,190	497,959	468,898
India	277,844	286,206	309,811
Belgium	246,528	279,635	299,306
France	241,360	272,433	266,694

Source : Center for the promotion of import from developing countries, a survey of the Netherlands and other selected markets in the European Union, compiled by ***Searce,*** *1999.*

Conclusion

There has been a continuous shift of leather, footwear and leather goods production from developed to developing countries mainly caused by price competitiveness. The developed countries import low and medium end market leather footwear and leather goods from developing countries keeping their manufacturing limited to high fashioned costly products.

Bangladesh has not yet been able to make a significant breakthrough in its leather sector through diversification and improvement of the quality of leather products. Bangladesh needs to improve the quality of leather products for better market access and economic benefits from the international export market including the developed countries.

Way Ahead

Given the highly polluting nature of the leather industries, their dependence on the European (particularly Italian) market and the realization (albeit gradual) that environmental issues are growing in importance, the time is ripe to initiate a multi-stakeholder dialogue between the private sector industry owners, local citizens affected, environmental regulators, health professionals, government export promotion officials, NGOs and media within Bangladesh. Such a dialogue would aim to develop ways to solve the pollution problem in a manner acceptable to all, including the industry owners, local people and environmental regulators. The inclusion of the importers from Europe into such a multi-stakeholder dialogue would enhance its effectiveness.

Future market access will increasingly depend on the product quality as well as compliance with international social and environmental standards. This will need treatment of waste and adoption of cleaner production technologies. Compliance with the international social acceptability standards like SA 8000 will also be required. The compliance will however require capacity building of the Standard Institutions in the Government as well as the private sector.

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