JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF INDUSTRIES, SCIENCE AND TECHNOLOGY
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

STUDY ON INDUSTRIAL SECTOR DEVELOPMENT

FINAL REPORT

VOLUME II

EXPORT AND INVESTMENT PROMOTION

March 1993

NIPPON KOEI CO., LTD.

UNICO INTERNATIONAL CORP.

JAPAN EXTERNAL TRADE ORGANIZATION

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF INDUSTRIES, SCIENCE AND TECHNOLOGY
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

STUDY ON INDUSTRIAL SECTOR DEVELOPMENT

FINAL REPORT

VOLUME II

EXPORT AND INVESTMENT PROMOTION

March 1993

NIPPON KOEI CO., LTD.

UNICO INTERNATIONAL CORP.

JAPAN EXTERNAL TRADE ORGANIZATION

Final Report

Volume I	Summary
Volume II	Export and Investment Promotion
Volume III	Metalworking Industry
Volume IV	Development Plan of Industrial Estates

VOLUME II EXPORT AND INVESTMENT PROMOTION

Table of Contents

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

(Ministries)

MIST	Ministry of Industries, Science and Technology
MHTI	Ministry of Handlooms and Textile Industries
MTC	Ministry of Trade and Commerce
MTRID	Ministry of Tourism and Rural Industrial Development
MOF	Ministry of Finance
MHE	Ministry of Higher Education

(Governmental Organisations)

BOI	Board of Investment of Sri Lanka (Formerly GCEC)
EDB	Sri Lanka Export Development Board
IDB	Industrial Development Board
SLSI	Sri Lanka Standards Institution
CISIR	Ceylon Institute of Scientific and Industrial Research
CITI	Clothing Industry Training Institute
TTSC	Textile Training and Services Centre
NIBM	National Institute of Business Management
SGC	State Gem Corporation
RRI	Rubber Research Institute
CEA	Central Environmental Authority

(Industrial Associations)

SLAEA	Sri Lanka Apparel Exporters Association
SLGTA	Sri Lanka Gem Traders Association
SLAMERP	Sri Lanka Association of Manufacturers & Exporters of Rubber Products

(Others)

ASEAN	Association of South East Asian Nations
BVS	Bonus Voucher Scheme
CBI	Carribean Basin Initiative
EC	European Community
EPZ	Export Processing Zone
FEEC	Foreign Exchange Entitlement Scheme
GATT	General Agreement on Tariffs and Trade
GSP	Generalized System of Preferences
MFA	Multi Fibre Agreement
NIEs	Newly Industrialising Economies
OECD	Organisation for Economic Co-operation and Development
OEM	Original Equipment Manufacturing
SITC	Standard International Trade Classication
HS	Harmonized Commodity Description and Coding System

1. STUDY OBJECTIVES AND METHODOLOGY

1.1 Study Scope and Objectives

The survey covers the following areas: 1) the promotion of export-oriented industries; 2) the improvement of export promotion policies, systems and organisations; and 3) the improvement of investment promotion policies, systems and organisations. Concerning 1), the survey targeted three sectors -- garments and apparel, gems and jewellery, and rubber-based products -- based on deliberations with our counterparts and in line with the current National Export Development Plan 1990-94 (see Table 1). For the ceramic products, processed foods, and coconut products sectors, import statistics of OECD, Japan, etc. were analysed, and the results are included in the report.

The objectives of the survey were as follows: for 1) above, to point out key issues in promoting exports in the three targeted sectors and indicate suggested courses of action; and for 2) and 3) above, to review current policies, systems and organisations for the three main sectors as well as other industries and indicate suggested courses of action.

1.2 Study Methodology

In the promotion of export industries, the question of how to produce and export products meeting the needs of foreign marketplaces takes on great importance. Therefore, the survey covered not only the target industries in Sri Lanka (i.e., the supply side) but also potential export markets (i.e., the demand side) in an attempt to come up with effective promotion policies. The basic concept behind these efforts is illustrated in Fig. 1.

In our work with the target industries in Sri Lanka, questionnaire surveys and in-depth interviews were conducted with local manufacturers after surveying the existing data and information. We also interviewed related government agencies and industry associations. Furthermore, comments from Japanese experts with experience in helping Sri Lankan industry were also taken into consideration.

The decision of which firms to survey and the preparation of questionnaires were based on deliberations with the EDB. The list of companies to be surveyed was narrowed down using the following qualification: of companies which have exported in the past or have the potential and volition to do so in the future, those which are mostly locally-capitalised and which, in principle, are located outside export processing zones

(EPZs). Local consultant carried out the questionnaire survey during April - June 1992, and in June and July the study team conducted in-depth interviews during its visit to Sri Lanka. The number of firms surveyed in each of the three targeted sectors was as follows:

	Responses	Interviews
Garments and apparel	100	15
Gems and jewellery	59	13
Rubber-based products	50	12

The studies of export and investment promotion policies, systems and organisations were firstly based on the literature. For export promotion activities, manufacturers were asked to indicate to what extent they had made use of such policies and offer evaluations and suggestions. As to investment promotion activities, an investment demand survey was carried out in Japan, and a questionnaire survey targeting Japanese manufacturing affiliate firms in Sri Lanka was conducted, again to determine usage, evaluations, and suggestions. 16 of these firms provided responses. Finally, interviews were held with related government agencies like the EDB and BOI.

2. PROMOTION OF EXPORT-ORIENTED INDUSTRIES

2.1 Garments and Apparel Industry

2.1.1 Items Covered

The survey limited itself to downstream garments and apparel (ISIC 32 Wearing apparel), namely, textile products which had been sewn. Products for industrial or household/interior use were not included. Upstream and mid-stream products (i.e., raw material—yarns—woven fabrics and knitted fabrics—dycing), were touched upon only when necessary for the formulation of promotion policies.

Garments and apparel classifications are based on Division 84 (Articles of apparel and clothing accessories) of SITC (Standard International Trade Classification) Revision 3. These are broadly divided by clothings for men and boys, women and girls, babies and accessories, and corresponding to the HS classifications.

2.1.2 Outline of World Trade

1) Characteristics of garments and apparel in world trade

Garments and apparel can be characterised as follows: 1) they are a consumer necessity; 2) they have a wide range of products and prices; 3) they have high income elasticity and are strongly fashion-oriented; and 4) labour accounts for a large portion of production factors during sewing. In addition, garments and apparel are produced and consumed in both industrialised and developing nations and support an active international division of labour and world trade.

For a developing country moving down the path toward industrialisation, the garments and apparel industry is an easy target for promotion because of the small necessary investment and the ability to utilise a relatively highly-skilled labour pool. This industry is characterised by the wide-ranging and rapid transfer of production facilities from the industrialised nations to developing countries.

As a result of these factors, it is relatively easy for new firms to break into the garments and apparel industry, resulting in fierce global competition. This is the reason for the prevalence of import restrictions worldwide. These restrictions are symbolised by the Multi-Fibre Agreement (MFA), which is one of the few remaining exceptions to

GATT. While the MFA does guarantee export quotas for the developing nations, it also prevents the free expansion of exports, and as such calls for its abolition have been heard during the new round of GATT negotiations.

2) Textile trade

Garments and apparel are produced in virtually every country of the world, but fabric and yarn production tend to be concentrated in certain countries and regions. The main reasons for this are climatic conditions in the case of natural fibres and capital and technological restrictions in the case of synthetic fibres. This has contributed to an active world trade in textile products and raw materials, so that leading producers of apparel products are not necessarily major suppliers of raw materials.

World textile exports (including yarns and fabrics) nearly doubled from $56.1 billion in 1980 to $11.0 billion in 1990. The industrialised countries were responsible for 49 percent of this increase and, developing countries for 51 percent. Of the developing countries, the nations of Southeast Asia made an especially large contribution.

The growth in Southeast Asian textile exports was the result increased output by the Asian NIEs, the ASEAN nations, and China. Exports included products destined for production both within and without the region. Southeast Asia is fast becoming a world supply centre not only for the garments and apparel to be discussed below but for fiber raw materials as well.

3) Trade in garments and apparel

Total world exports exceeded $3.9 trillion in 1990. Of this figure, textiles (i.e., yarns and fabrics) accounted for $11.0 billion, or 3 percent of the total. Garment and apparel exports totaled $10.9 billion. From 1980 to 1990, exports of garments and apparel grew at an annual rate of 11 percent, outstripping the 7 percent figure posted by yarns and fabrics.

Developing countries exported more garments and apparel than the industrialised nations. In 1990, the representative shares were 56 percent and 41 percent. Among the developing countries, Hong Kong, the Republic of Korea, and Taiwan were responsible for fully 30 percent of the world's exports. In recent years, however, shipments by China and ASEAN countries like Thailand and Indonesia have been

growing. Exports from India, Pakistan, Bangladesh and Sri Lanka are also on the rise, although Sri Lanka's share of the world market is still less than 1 percent.

Other areas experiencing significant growth in exports include the Caribbean, North Africa, and Mauritius.

In 1990, 83 percent of garment and apparel exports were destined for the industrialised nations. According to OECD import statistics, worldwide imports in 1990 amounted to $100.2 billion, of which 42 percent originated in OECD countries and 58 percent in non-OECD countries. Asia in particular was the source for 44 percent of all imports.

Of the OECD importers, the EC had a share of 51 percent, the U.S. 27 percent, and Japan 11 percent, together representing nearly 90 percent of the total. As can be seen from Table 2, which shows growth in imports for these three regions/countries during 1985-90, Japan recorded the highest rate of growth (an average of 34 percent a year). Japanese imports of garments and apparel grew by about $7 billion during this period, and 70 percent of these shipments originated in Asia.

4) Japan's import market

Japan's imports expanded substantially in the late 1980s following the appreciation of the yen that began with the 1985 Plaza Agreement. The breakdown of imports has also changed. In value terms, imports grew from $129.5 billion in 1985 to $236.7 billion in 1991. Manufactured imports soared from $40.2 billion to $120.3 billion, propelling the growth in total imports. The increase in manufactured imports is due to the factors indicated below. While imports eased slightly in 1990, the increase in imports is a medium- to long-term trend that is built into the structural changes currently being experienced by the Japanese economy.

(1) Change in relative prices due to the appreciation of the yen

(2) Transfer of production operations abroad due to 1) and a shortage of labour (foreign direct investment, OEM arrangements to foreign firms, and the development of products to be produced abroad and imported by Japanese companies)

(3) Continuation of stable economic growth led by domestic demand

(4) Rising personal income and consumption outlays

(5) Efforts by the Japanese government and industry to promote imports

Amidst this trend of growing imports, textile imports grew substantially. Fig. 2 shows the conditions of growth. While imports fell somewhat in 1990 due to a weakening of the yen and a sluggish economy, they were still, at $13.7 billion, 3.5 times higher in 1991 than the $3.9 billion recorded in 1985. The growth in textile product imports, centering around garments and apparel, can be characterised as follows:

1) In terms of import sources, shipments of low-cost products from Asian countries increased rapidly, as did imports of high-end items from Europe.

2) Among the Asian countries, growth was initially centered on the Republic of Korea, Taiwan and Hong Kong, but in recent years the focus of growth has shifted to China and ASEAN countries like Thailand and Indonesia.

3) The rapid increase in Asian imports is due to factors like increased competitiveness, reverse imports, OEM arrangements, and the development of products to be produced abroad and then imported by Japanese corporations.

Of these factors, 3) is a structural factor reflecting the industrialisation of Asian nations coupled with changes in Japan's industrial structure. Moreover, since it is the result of a global division of labor, growth in Japanese garment and apparel imports from Asia, excepting slight annual fluctuations, is expected to continue.

Japan is thus providing an export market for Asian producers. Due to the large number of new entries in the Japanese market, however, competition is growing intense. This competition goes beyond price to include factors like quality, delivery time, and design. Consequently, long-term success in the Japanese market requires that manufacturers "quickly export quality products at low prices." In other words, competitiveness is needed in both price and non-price areas.

Japanese imports of garments and apparel from Sri Lanka began to grow in 1989 and topped around $10 million mark in 1991. This represents only 0.1 percent of total imports (Table 4), and as yet Sri Lankan products have yet to build a foothold in the Japanese market.

From a medium- to long-term standpoint, Japanese consumer needs have grown increasingly diversified, individual, and upmarket together with rising personal incomes

and changing lifestyles. In the case of garments and apparel, consumer needs have brought about a trend towards flexible manufacturing, shorter product cycles, and higher added value. In response to the changing demand structure, garments and apparel suppliers are being asked to rapidly supply products meeting diverse consumer needs, regardless of whether they were produced in Japan or abroad. Thus, the issue of how best to respond to these needs will be the key to success in the Japanese market.

5) The U.S. import market

The U.S. garments and apparel market was valued at $148 billion in 1990 (based on retail sales), of which imports accounted for $75 billion, or slightly more than half. Customs-based imports were valued at $21.9 billion, the highest figure of any OECD country. 45 percent of these products were made mainly from cotton.

The main suppliers to the U.S. market were found in East Asia (China, Hong Kong, Taiwan and the Republic of Korea), Southeast Asia (ASEAN countries), Southwest Asia (India, Pakistan, Sri Lanka, and Bangladesh), and the Caribbean region (including Mexico). The growth of exports has dulled since 1988 due to sluggish consumption and stricter import restrictions, but imports from the Caribbean nations have grown sharply. Contributing factors include increasing investment from firms in the U.S. and the Asian NIEs, the result of the Caribbean Basin Initiative (CBI) programme.

As growth in overall demand, including garment and apparel imports, has slowed, competition has intensified for both imports and locally-made goods. This has resulted not only in lower prices but also in shorter delivery times and higher quality. Today, an increasing number of retailers specify delivery times not in units of weeks or months but in hours. Thus, time-based competition has become increasingly important.

6) Asian Competitors

(1) Thailand

As Thailand has progressed down the path towards industrialisation, the textile industry (including textiles as well as garments and apparel) has played a key role. After being promoted as an import substitution industry in the 1960s, the nation's textile sector grew rapidly as an export-oriented industry in the 1970s and after.

According to 1990 GDP figures, the textile sector was the country's largest manufacturing industry, accounting for fully one-fourth of total production. Garment and apparel exports amounted to $2.6 billion, representing 11 percent of total exports and making textiles the largest single export item. The garment and apparel industry employs more than 890,000 workers, representing 30 percent of all manufacturing-related employment.

Outer garments account for about 70 percent of all garments and apparel exports. The main items are cotton suits, pants, skirts, dresses, shirts, and blouses. In the past, quota areas like the United States and the EC were the main destinations for exports. Lately, exports to non-quota regions, including Japan, the Middle East, Central America and Oceania, have also been increasing.

Thailand's garment and apparel industry is based on production-on-order. Especially in the case of exports, firms manufacture most of their products using specifications and designs provided by buyers. Accordingly, problems which must be solved to maintain export competitiveness include the development of designs, the improvement of sewing technologies and the upgrading of quality of domestically-produced cloth. On the other hand, the government is taking measures to facilitate imports of high-performance machinery and promote tie-ups with foreign enterprises.

Newly emerging as competitors for Thailand in exports of garments and apparel are the ASEAN nations, Indonesia in particular, India and other Southwest Asian countries, China, Vietnam, in addition to Asian NIEs. Accordingly, government and industry are working together to develop markets for Thai products by holding exhibitions and business talks and beefing up the production structure.

The Middle East and Japan are being targeted as potential markets because of market integration and other uncertainties in the EC. Local enterprises view exports to Japan, which has a large market and strict quality requirements, as an indicator of trustworthiness. The United States, the largest overseas market, purchases mainly outer garments of comparatively low quality for sale to low-income consumers. Accordingly, steady exports are expected to continue into the future.

(2) Indonesia

The textile industry started in the 1950s with the replacement of garment and apparel imports. Later, midstream and downstream sectors like spinning and synthetic fibres were gradually formed. Starting in the second half of the 1980s, the country made efforts to promote exports, mainly of garments and apparel. Growth in exports of "non-migas" (non-oil and gas) products is now Indonesia's main economic development target. The textile industry has become the largest of the "non-migas" export sectors.

Textile product exports in 1990 were valued at nearly $3 billion, of which garments and apparel accounted for 57 percent, fabrics 19 percent, and yarns 3 percent. Of the just over $1.6 billion in garment and apparel exports, close to 80 percent went to areas under MFA quotas, with the rest going to non-quota areas like Japan and Saudi Arabia.

The number of garments and apparel firms in 1990 stood at 710. The number of sewing machines installed at these firms totaled 270,000 units. Investment from foreign enterprises has grown lately. Especially notable is new investment by garment and apparel firms in Japan, Republic of Korea and Taiwan. In the last two years, 20, 19 and eight authorisations for new investment projects were granted to firms from these countries, respectively.

Most firms manufacture products on consignment based on specifications and designs provided by the foreign buyer. Brand names are mainly those of the buyers. Some large local firms have begun manufacturing under license from European, American and Japanese firms, however, and many firms are struggling to modernise facilities in a bid to improve the quality of their products.

The government supports firms through a wide range of measures. It encourages exports through incentives such as the elimination or reduction of tariffs on imports of raw materials and machinery. It supports company activities to develop overseas markets, hold seminars and take part in exhibitions. And it helps firms to train engineers and bring up experts in international trade.

2.1.3 Sri Lanka's Garments and Apparel Industry

1) Brief history

The garments and apparel industry, the largest of Sri Lanka's export industries, is expected to play the biggest role in earning foreign exchange under the current export development plan for the immediate future. It also plays an important role in the creation of jobs. As seen in the "200 garment factory" programme, the industry has been given a leading role in the social and economic development of rural areas outside the capital.

Sri Lanka's garments and apparel industry began developing as an export industry in the 1970s. From 1978, in particular, foreign companies built their factories mostly in the export processing zones to make garments and apparel for export to Europe and North America. Production sometimes stagnated due to social and economic upheavals caused by civic conflicts in the 1980s. But with these conflicts subsiding starting around 1989, and thanks to effects of liberalisation, production in the garments and apparel industry has become brisk.

2) Industry status

The garments and apparel industry has become crucial for Sri Lanka, whose industrialisation strategy is based on exports. This is shown in the following indicators.

(1) The ratio of garments and apparel production to total industrial output has been the largest since 1987, reaching 30 percent in 1991. Although it was second to the drinks and foods industry in terms of value added, the significance of the garments and apparel industry has been on the rise lately. The ratio of the drinks and foods industry was 51 percent in 1991 and that of the garments and apparel industry, 23 percent. The former uses mostly domestic materials. The garments and apparel industry includes textile and leather products, but garments and apparel remain its leading items.

(2) The garment and apparel industry employs more than any other sector. According to the Annual Survey of Industries by DCS, the number of employees in the garments and apparel industry in 1991 was 107,600, representing 44 percent of

all manufacturing-related employment and placing it far ahead of the runner-up, the drinks and foods industry, which employed less than 60,000.

(3) Garments and apparel are the country's largest export products. The value of exports and ratio of exports to total merchandise exports has continued to rise recently, reaching 31.7 billion rupees and 37.5 percent, respectively, in 1991 (see Table 5). In the current Second National Export Development Plan 1990-94, efforts will continue to expand garments and apparel exports, with their contribution to overall export growth being the largest at 25 percent (Table 1).

These indexes are expected to rise further when capacity expansion plans at existing firms and the 200 garment factory programme gather steam. The latter programme in particular assumes that each factory will employ 500 people each, resulting in total employment of 100,000. As of end of December 1992, the incentive-offering BOI had already approved more than 190 factories (60-odd factories are currently in operation). If the goals of this programme can be achieved, the garments and apparel production capacity of Sri Lanka is estimated to increase by more than 200 percent over current levels.

3) Outlines of firms

Following is an outline of garments and apparel firms and their problems based on the results of the questionnaires (100 responses):

Basic characteristics of firms

Year of establishment	-- 1979	18
	1980 -- 1984	20
	1985 -- 1989	39
	1990 --	19
	Unknown	4
Number of employees	-- 100	23
	101 -- 200	31
	201 -- 500	33
	501 -- 1,000	6
	1,000 --	7
Actual export records	Have	92

Don't have	4
Unknown	4

Broken down by type of capital, there were 67 local-capital firms, three foreign-capital enterprises and three joint ventures. The remaining 27 were unknown.

Production

Ninety-seven firms operate on a one-shift work schedule. Only two firms have two shifts.

Training of employees (multiple responses were permitted) was done in-company by 91 firms, outside by 19 and with support from the government and foreigners by nine.

As to product inspections, 90 firms owned inspection divisions and 96 conducted sampling.

Of the 100 firms, 67 produced on consignment for overseas firms.

Exports

92 firms had exported in the past. 85 of them exported 90 to 100 percent of their products.

61 replied that exports were expanding, and eight others answered that they were leveling off.

As to export routes (multiple responses were permitted), 31 firms exported directly, and 88 passed through local agents or foreign trading firms.

Concerning the first contact with buyers, 55 cited visits by importers and inquiries; 10, EDB's inquiry service; seven, exhibitions; and 15, participation in missions.

As for the sources of overseas information, 23 firms cited EDB; 49, local trading firms; and others, overseas buyers.

Problems

Concerning major production-related problems (multiple responses were permitted), 47 firms cited the quality of labour; 34, labour costs;17, cloth and auxiliary materials; 16, quality control; and 14, technology. Many of the firms citing costs referred to the high cost of capital.

Many firms indicated delivery time, prices and quality as problems with cloth. Almost all cloth and auxiliary materials in use are imported.

4) Foreign investment

Foreign enterprises, which build most of their factories in export processing zones (EPZs), have contributed greatly to the development of the garments and apparel industry, and particularly to export growth.

According to BOI statistics (including non-EPZ projects from 1990 onward), the number of projects for which authorisation was given and contracts concluded totaled 195 from 1978 through the end of 1991. Most of these involved direct investment by foreign firms. Of this total, garments and apparel production projects accounted for 51, or 26 percent, the most of any item. Contracts for the 51 projects were concluded at an annual rate of one or two in the 1980s, but the pace rose to 12 in 1991 (see Fig. 3). Contributing factors include a backlog of contracts left pending until the restoration of social stability and an increase in the number of new projects. This trend continued in the first half of 1992 with the conclusion of contracts for nine new projects.

Export-oriented enterprises, consisting mostly of foreign affiliates, play a major role in industrial product exports. According to the central bank's 1991 annual report, operating investment projects under the jurisdiction of the BOI at the end of 1991 numbered 153. They were responsible for 22.1 billion rupees in exports in 1991, or 26 percent of total merchandise exports. As for garments and apparel, which account for the largest number of investment projects, firms given BOI status mostly on the basis of the location of their factories in the EPZs are responsible for more than 40 percent of Sri Lanka's exports. Most of these firms are wholly owned by foreign companies or are joint ventures between local and foreign enterprises. Some, however, are entirely locally owned.

5) Exports

Growth in garments and apparel exports has been remarkable as of late (Fig. 4). The value of exports surpassed the 30 billion rupee mark in 1991, and their share of total merchandise exports rose to just over 37 percent. Volume exceeded 240 million pieces.

Broken down by destination, 60 percent (in value terms) went to the United States and 30 percent to the EC. Exports to Japan, which have continued growing since 1989, stood at just over 1 percent (Table 6). Most exports to Europe and North America are made under MFA quotas.

6) Main promotion measures and agencies

(1) Main promotion measures

Since the garments and apparel industry is the largest single export industry and efforts continue for its development, it receives priority treatment in the form of various export and investment promotion measures. These measures are not inferior to those of many other Asian nations. In fact, many enterprises utilise them and rate them highly for their usefulness.

Outlines of the export promotion measures and utilisation and evaluation of typical promotion measures by garment and apparel firms as determined through the questionnaire survey will be described in Section 3. Export Promotion Policies, Systems and Organisations.

In general, tax incentives are utilised often, and they are highly rated. On the other hand, assistance for product development, market development, and information services is not utilised often, although firms indicated that it was useful. Small and medium-size enterprises in particular seldom took advantage of them. This reflects the need for greater assistance for small business.

The same questionnaire also asked in which areas firms desired government assistance. Information services was the most common reply, while many firms also called for assistance in sponsoring exhibitions and dispatching missions to develop new markets, and also for technological guidance related to product development and employee training. The results indicate a need for greater

assistance, including efforts to make firms more aware of the programmes that are available.

Comments made in response to the questionnaires and during the interviews often referred to an expansion of export quotas and greater financial assistance (i.e., higher loan ceilings and lower interest rates). Government efforts are needed to improve these points.

(2) Main promotion organs

Since the garments and apparel industry is Sri Lanka's largest export industry, many government agencies and industry associations offer incentives and supporting services to private firms. With the exception of export promotion organs (such as EDB) and investment promotion agencies (such as BOI), which will be covered later, the role of the main promotion organs for the garments and apparel industry can be summarised as follows.

<1> Government agencies

The central government agency in charge of industrial development as a whole is the Ministry of Industries, Science and Technology (MIST). The Industrial Commission, which coordinates government agencies related to industrial development, has its secretariat in MIST. The Ministry of Handlooms and Textile Industries (MHTI) is in charge of textile production, including garments and apparel, and the Ministry of Trade and Commerce (MTC) has jurisdiction over export promotion. Negotiations of clothing quotas with European and North American countries are handled in principle by MTC, while MHTI is in charge of dividing these quotas up among individual firms.

<2> Government-related organs

The Sri Lanka Standards Institution (SLSI), under the jurisdiction of MIST, is responsible for the creation and promotion of standards. Thus far, SLSI has established about 100 standards of textile products. The most important among the various research institutes is the Central Institute of Scientific and Industrial Research (CISIR), which is under the jurisdiction of MIST.

The only public organ for training personnel is the Clothing Industry Training Institute (CITI), which falls under the jurisdiction of MHTI. In the textile sector, there is also the Textile Training and Services Centre. The Industrial Development Board, now under the jurisdiction of the Ministry of Tourism and Rural Industrial Development (MTRID), provides assistance mainly to small businesses, including garment and apparel firms, and also for the development of smaller industrial estates.

<3> Industry associations

The Sri Lanka Apparel Exporters Association (SLAEA) is the most important of the industry organisations related to garments and apparel. Established in 1982, this relatively young organisation has a membership of just under 200 firms, most of which are located outside the EPZs. SLAEA is one of the few industry associations actively promoting industry in a tie-up with government agencies. One of its activities is publicity. Its monthly magazine, *Sri Lanka Garments*, has become a very useful source of information, carrying basic data pertinent to garment and apparel exports.

7) Major problem areas

The Sri Lankan government and industry plan to further expand garment and apparel exports. In the development of export markets, efforts are being focused on Japan, which is a non-quota country, and the measures needed to achieve this are being sought.

Based on an awareness of these problems, the main problem areas will be summarised below based on 1) the results of the questionnaire surveys and interviews with garment and apparel firms, and 2) the opinions offered by Japanese experts dispatched by JETRO with cooperation from the EDB.

(1) Production-related problems

Production elements

<1> Unstable supply of materials and auxiliary materials (prices, quality, delivery times, etc.)

<2> Securing personnel (skilled workers, production managers, international traders, etc.)

<3> Inadequate maintenance and management of facilities (sewing machines, etc.)

<4> High cost of capital (interest rates, etc.)

Production management

<1> Insufficient management of factories and processes

<2> Inadequate quality control

<3> Insufficient testing and inspection

<4> Unreliable infrastructure (electrical power and communications in particular)

(2) Marketing/export-related problems

Export markets

<1> Intense global competition

<2> MFA quotas

Marketing

<1> Insufficient marketing concepts

<2> Shortage of information about targeted markets

<3> Inadequate sales promotion activities

(3) Problems in public support services

Corporate assistance

<1> Limited resources (personnel, funds, etc.) of government agencies and insufficient coordination among agencies

<2> Shortage of information service

<3> Slow, complicated procedures

Business environment

<1> Deficiencies in infrastructure (electrical power, communications and transport, in particular)

<2> Lag in energy conservation and environmental protection measures

These problems will be treated in detail in Section 2.1.4 3).

2.1.4 Recommendations for Promotion Measures and Programmes

1) Basic viewpoints

Before studying export promotion measures for the Sri Lankan garment and apparel industry and working out specific programmes, a SWOT (Strength, Weakness, Opportunity and Threat) analysis is employed, based on various factors, including supply and demand-related problems at home and abroad. SWOT analysis is likely to be effective in considering development strategies for Sri Lanka's garments and apparel industry.

Briefly, the results of the SWOT analysis were as follows:

(Strengths)	(Weaknesses)
• Advantageous labour cost and workforce	• Insufficient product adaptation
• Relatively small capital requirements	• Shortage of marketing capability
• Competitive export incentives and support services	• Import requirements for quality fabrics and ancillaries
(Opportunities)	**(Threats)**
• Foreign direct investment	• Steep international competition
• OEM/subcontracting arrangements	• Newcomers and protectionism
• Preferential treatment under GSP	• After MFA

Reasons for each will be described below.

The three greatest strengths of Sri Lanka's garment and apparel industry are as follows: 1) the country's pool of labour is relatively high in quality and low in cost; 2) since sewing is the main process in the garment and apparel industry, relatively little capital investment is needed, making it an easy field for developing countries and small businesses to enter; and 3) Sri Lanka's export incentives are world-class, and there is also an established system of government assistance.

Concerning 1), this is clearly the most important single advantage for Sri Lanka's garment and apparel industry. In addition to a plentiful supply of labour for sewing, Sri Lanka can boast of a rate of primary school graduation that rivals figures for the industrialised nations. Furthermore, Sri Lankan labourers are known for their excellent dexterity and eyesight. Labour costs are also relatively cheap. The average monthly wage for a female sewing plant employee, for example, is $50-60, roughly one-twentieth the figure for Japan, one-tenth to one-fifteenth the figure for the Asian NIEs, and about one-half the figure for Thailand. Wages in Indonesia and China are about the same as in Sri Lanka, but Sri Lanka offers higher productivity.

The three major weaknesses, on the other hand, are 1) insufficient development and production of products meeting customer needs, including quality needs; 2) a lack of marketing expertise; and 3) the fact that imports of the high-quality fabrics and auxiliary materials required for export production must be rationed out. 1) and 2) are true of the great majority of local-capital companies. 3) is simply a reflection of the current situation, in which domestic production is insufficient in terms of both quantity and quality. Few countries, however, produce all the fabrics and auxiliary materials needed to make garments and apparel. Dependence on imports alone is not thought to be a decisive weak point.

Opportunities for domestic and foreign garment and apparel firms include: 1) foreign direct investment and technological tie-up; 2) OEM or subcontracting arrangements; and 3) preferential tax treatment under GSP. Realisation of the first two points will be accompanied by the transfer of management resources such as sales channels or markets and marketing expertise, which is expected to result in prompt export promotion effects.

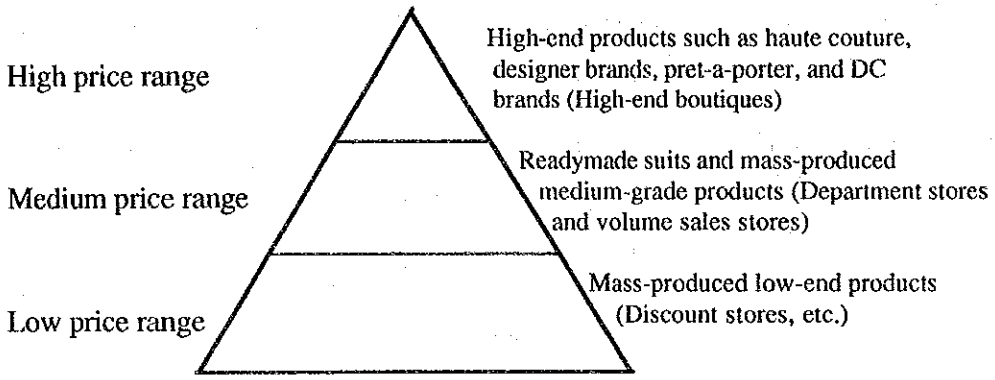
Finally, threats include: 1) steep international competition; 2) newcomers and protectionism; and 3) the trade environment after MFA. Newcomers to the garment and apparel trade are so numerous that international competition has become fierce. Since many nations have their own garment and apparel industries, protective measures are likely to be taken. MFA permits an import quota system within the GATT framework. While it hinders free trade, it also guarantees exports from developing countries. When MFA is gone, competition based on free trade will become keener. Competitiveness must be enhanced to prepare for such a situation.

2) Targeted products and markets for garment and apparel exports

Current Sri Lankan garment and apparel exports are directed mostly toward the industrialised nations of Europe and North America. Moreover, they Centre on subcontracting, with product development being entrusted to buyers. The mostly low-cost products are exported under MFA quotas. Low cost is the main selling point.

As stated earlier, however, competition in the low-priced product market is fierce and is being made fiercer by the onslaught of newcomers. No major increases in the MFA quotas can be expected. In existing markets, there is a limit to how much export competitiveness can be maintained based on low prices alone. For the medium and long term, therefore, it will be necessary to aim at market segments for medium-priced products and over. Furthermore, the expansion of non-quota items and the development of markets in non-quota countries and territories will become increasingly important.

The garments and apparel market can be divided in a variety of ways: by price range, application, buyers, seasons, and other factors. Since the main selling point of Sri Lankan products today is price competitiveness, this section will focus on market segments in terms of price ranges. This concept can be expressed generally in the following diagram:



While maintaining the low-priced product market for the short term, Sri Lanka's garment and apparel exports should aim to penetrate the medium-priced zone of mass-produced medium-grade products in the medium term. To this end, the use of subcontracting is expected to be both practical and effective. Subcontracting arrangements allow firms to depend on buyers for product development and marketing while learning technology required for the whole transaction, quality control expertise, and so on. With the accumulation of such expertise, firms develop their own management resources to improve product development capabilities and differentiate their products.

As for export markets, firms should develop new markets for the medium term, while continuing efforts to expand European and North American markets in the short term. The new markets include non-quota countries and territories centering on Japan, Australia and other industrialised nations, where efforts are already being made, the former Soviet Union and Eastern Europe, and the nations of the Middle East. Competition is intense around the world, and economic turmoil continues in the former Soviet Union and Eastern Europe. Therefore, greater marketing activities are needed, as are more efforts to gather information. As a reference to exporters in Sri Lanka, promising apparel for the Japanese market and merchandising time schedule therein are shown in Talbes 7 and 8.

3) Problems and solutions

In order to realise the targets for Sri Lankan garment and apparel exports mentioned above, it is necessary to resolve the problems pointed out in 2.1.3 7). The solutions will lead to promotion measures. Therefore, this section will classify problems and consider promotion measures individually on the basis of current

conditions in Sri Lanka. The following section will propose promotion programmes in concrete terms with Sri Lanka's interests in mind.

Of the problems indicated in Section 2.1.3 7), those concerned with production will be classified as "expansion of production capabilities," those concerning sales, "expansion of export markets," and those concerning government assistance "strengthening of public support services." Measures for the solution of major problems in individual categories are as follows:

(1) Expansion of production capabilities

<1> Stable supply of fabrics and auxiliary materials

Since there are limits to the use of domestic materials, efforts should be made to realise a stable supply (in terms of price, quality, delivery time, etc.) of imported materials for the short term. The government, which already provides various incentives such as refunds of customs duties on imported materials for the production of export products, should further simplify and speed up procedures. Imports should also be stabilised by using foreign trading firms, etc.

In the medium and long term, "backwards integration" to attain domestic production of fabrics and other materials will be studied. But economic viability should be fully taken into consideration since domestic production will require heavy capital investment, and the use of homemade materials that are uncompetitive in prices and quality will affect the export competitiveness of garments and apparel. Consideration of domestic production is desirable to begin with the effective utilisation of existing capacity. This can be achieved by improving textile factories transferred to private management, through the more efficient use of products manufactured by foreign firms with factories in the EPZs and promotion of foreign investment.

<2> Manpower training

Development of human resources is crucial for the garments and apparel industry, in which labour plays such a large role. In Sri Lanka, the pool of labour and personnel has been unable to keep pace with the expanding industry, and prompt measures are needed to cope with the shortage.

Personnel in this case means not only skilled workers but also technical experts and managers charged with managing production (to be discussed later) and international traders well-versed in export marketing.

With regard to the training of workers, the planned strengthening of CITI (training of more persons, increased installation of equipment, spread of services to provinces, etc.) should be realised at an early date. Also awaited is the realisation of an expansion plan (acceptance of more students, a larger number of courses, installation of more equipment, etc.) being worked out by the textile department of Moratuwa University, which trains engineers for the textile industry, including garments and apparel.

Training of international traders is required for the export not only of garments and apparel but of other industrial products as well. This is necessary for the people who shoulder the responsibility of both private corporations and government agencies. Because this area is expected to become increasingly important in the future, it should be dealt with over the medium and long term.

<3> Extensive production management

Modern production management methods are essential to make good merchandise with high productivity. Many factories need improved layouts for processing lines, proper arrangement of equipment, better illumination, guarantees of worker safety and adequate and proper maintenance of equipment, including sewing machines. Also needed are quality control activities, especially total quality control or total quality management, and enhancement of existing inspection systems.

Problems involved in production management and possible solutions are shown in Table 9. Early realisation is expected because many of these measures could also be put into practice by private enterprises if they wished to do so. Public agencies, which will be discussed later, will provide guidance to private firms by holding seminars and dispatching experts to visit factories.

(2) Expansion of export markets

<1> Improvement of marketing capabilities

Amid the increasingly steep competition in export markets, improvement of marketing abilities is becoming more and more important. Nevertheless, as yet very few firms recognise the importance of this and make adequate efforts for marketing. This is because many of the garment and apparel manufacturers are subcontracting for companies in the industrialised nations, and also because MFA quotas sometimes guarantee export markets. Improvement of marketing abilities will have to be dealt with early on if the programme to set up 200 more factories in the provinces or the plan to increase exports to non-quota areas (including Japan) are to be realised.

In this respect, three measures are required: 1) introducing marketing concepts; 2) conducting market surveys; and 3) strengthening sales promotion activities. With regard to 1), marketing concepts and methods should be disseminated among managers and personnel in charge of export sales. 2) means the gathering of information about the needs of potential export markets, the possibility of sales, and sales methods. Market surveys should be conducted independently, if possible, and the results reflected in production activities. 3) means concrete sales promotion activities through public relations, publicity, product displays in exhibitions, inquiries, and so on.

<2> Expansion of quotas and development of new markets

Securing new export markets is urgent when the programme to build 200 new factories in the provinces is taken into consideration along with the establishment of new facilities by existing firms. Enterprises are very interested in this problem. Support from government agencies is needed in addition to independent efforts by private companies.

For the time being, there is no prospect for the abolishment of the MFA quotas. Accordingly, the government is requested to make further efforts to expand the quota framework in its negotiations with European and North American countries. The government and private sectors are desirable to work together to develop non-quota items and develop new export markets in non-quota nations and territories. In this respect, it is recommendable that the EDB

strengthen its activities by cooperating with SLAEA, utilising Sri Lanka's diplomatic offices abroad, and strengthening tie-ups with trade promotion organisations in other countries.

(3) Strengthening public support services

Basically, private enterprises should cope with the production and marketing-related problems independently. However, since companies, and small businesses in particular, are limited in what they can do on their own, active assistance from the government is needed for those problems that are shared by many firms.

<1> Expansion of policy support

Sri Lanka's policy of development and export promotion for the garments and apparel industry is on a par with that of any other country. Many firms evaluate it as being effective. However, most of the firms expressed dissatisfaction or suggestions for improvement over a wide range of issues, including development of sales channels (e.g., quota increases, development of new markets), improvement of loan systems (e.g., higher loan ceilings and lower interest rates), streamlining and speeding up of procedures, distribution of more information (concerning policy itself as well as markets and technologies), greater training of personnel in the areas of technology, marketing, and quality control, and promotion of standardisation.

Of the problems pointed out above, one requiring urgent attention by the relevant government agencies is support for private companies in developing sales channels, the streamlining of procedures, and the distribution of more information. The problems of improving loan systems, enhancing personnel development and training (for international traders in particular) and promoting standardisation would be dealt with in the medium and long term, taking into consideration the various resources available and links with the promotion of other industries.

<2> Coordination and strengthening of government agencies

In addition to limitations on available resources (personnel and funds), mutual coordination is believed to be insufficient among the government agencies which carry out policy and provide assistance to private firms. For the effective utilisation of resources and the development of easy-to-use

services, it is recommendable that agencies be unified according to the similar kind of service being offered (e.g., the BOI's "one stop service centre").

To this end, the Industrialisation Commission is requested to coordinate related agencies during the short term. In the medium and long range, it would be effective to unify export promotion activities in the EDB, as investment promotion activities are in the BOI, and enhance activities through the concentrated use of resources.

<3> Improvement of business environment

Although the government is making efforts to improve the environment for business activities by private firms, it will have to continue these efforts from the medium and long range viewpoint because of the funds and time that will be necessary. These efforts include the following: 1) maintaining the existing economic policy and export and investment promotion measures, and securing political and social stability; 2) improving the infrastructure, in particular transport (road, sea and air routes), communications (telegram and telephone networks), and power; and 3) promoting energy conservation and preservation of the environment.

1) is a prerequisite for business by private firms. As for 2), not only physical improvements but also the reliability of their services is important. Before improving the infrastructure for the country as a whole, it might be effective to develop industrial estates as an alternative on short term. 3) is a problem to be reconciled with economic development and the government is requested to take the initiative in providing guidance to private firms.

4) Main promotion programmes

The maximum possible effect should be aimed at by considering available resources, including foreign aid, and combining and coordinating various steps in implementing the promotion measures mentioned in the previous paragraph. Programmes should be worked out based on their priority and potential for realisation, and implemented for the short or medium to long term.

The following are offered as the main programmes for garment and apparel industry development and export promotion. Concerning the action plans for each programme, a summary table is attached in the last part of this chapter. Medium to long

term priority programmes, including promotion programmes for the other industries, will be taken up in Chapter 5.

(1) Short-term programmes

It is recommended that the following programmes be implemented as a package. However, programmes <1> and <2> should be given priority after taking into consideration progress on the plan to build 200 factories in rural areas.

<1> Strengthening of export promotion activities

The EDB is requested to play a central role in continuing and strengthening export promotion undertakings in support of private firms. These include gathering and distributing overseas market information, participating in exhibitions, and holding seminars while expanding export promotion measures for garments and apparel. It would cooperate with SLAEA and trade promotion agencies of foreign countries and work to coordinate the resources and schemes of other agencies.

The export promotion projects should be implemented strategically over a number of years after confirming the key markets based on the characteristics of each market. In the case of Japan, for example, a continuous approach is necessary. It is advisable that a total of about 20 selected companies be assisted to promote exports to markets overseas.

<2> Expansion of CITI and Moratuwa University's Department of Textile and Clothing Technology

Efforts should be made to expand CITC and the Department of Textile and Clothing Technology of Moratuwa University, because the needs for training and education in sewing technology are growing, and the shortage of talent in the private sector is conspicuous. Since each agency has its own expansion programmes, the government is requested to work towards their quick realisation through the use of foreign aid, etc.

CITI trains 1,200 people a year (including short courses), and there are plans to accept a greater number of trainees and add more technology-related courses. There are also calls for the enhancement of facilities and the invitation of foreign experts. Moratuwa University's Department of Textile and Clothing

Technology is expanding learning opportunities for technicians in its four-year engineering course (from 20 to 40 students) and three-year technology course (from 25 to 50 students). The department also plans to enhance its facilities and increase the number of instructors.

<3> Technical and managerial improvement of companies

The EDB and IDB are desirable to play a central role in visiting garment and apparel factories for guidance in technology and management by utilising their own staff and foreign experts. For the time being, visits would be limited to medium-size firms willing to pay for the service. The visits should also be repeated in order to give satisfactory results. It is advisable that a total of about 20 selected companies be given in-factory guidance.

Plant-floor improvements in technology and management can be expected to have an immediate positive effect. In addition, EDB and IDB staff members, who will visit factories in the company of foreign experts, should utilise this experience when providing guidance to other companies.

<4> Promotion of foreign investment and technical tie-ups

The BOI is requested to play a central role in boosting production capacity of garments and apparel, and continuing efforts to promote financial and technological tie-ups with foreign companies to achieve a stable domestic supply of fabrics and auxiliary materials necessary for the industry. Particularly, the latter seems to require a step-by-step approach including full consideration of the economic viability of domestic fabric production. This should be followed by a study of what kinds of fabrics to produce first, whether dyeing operations should be started in Sri Lanka, and what auxiliary materials should be manufactured first.

Concerning localised production (especially backwards integration) of fabrics and auxiliary materials, a medium- to long-term approach is thought to be necessary. This topic will therefore be covered in a medium- to long-term programme.

<5> Vitalisation of industry associations

As a relatively young organisation, SLAEA has few member firms yet. With efforts being made to strengthen its activities for the promotion of garment and apparel exports, the industry organisation will work to increase its corporate membership and receive support from the EDB and other government agencies. It will also deepen ties with similar organisations overseas.

(2) Medium- and long-term programmes

<1> Stable supply of fabrics and auxiliary materials

The government and companies should strive to achieve a stable supply of imported goods (in terms of volume, quality, and delivery time). In the medium- to long-term, localisation will be studied by MHTI, TTSC (Textile Training Services Centre), EDB, and BOI while taking economic viability into consideration. The ability to locally produce fabrics and auxiliary materials for use on garments and apparel destined for export would improve the competitiveness of these exports and improve the balance of foreign exchange.

Concerning the promotion of backwards integration, it would be most efficient to proceed step-by-step starting from the finishing process (dyeing and printing) to fabrics to yarns. In addition, existing methods such as the attraction of foreign investment and the promotion of privatelised textile factories should be fully utilised, with foreign experts to be called in when necessary.

<2> Training of export marketing and management personnel

Training of personnel to supervise export marketing and modern corporate management is necessary to produce garments and apparel capable of meeting the needs of overseas markets and to expand exports. At the same time, efforts must be made to upgrade exports to medium-priced products. For the time being, the EDB and NIBM are requested to train such individuals using current functions and resources. In the medium and long term, however, the establishment of a Trade Training Centre, which is being considered by the Sri Lanka side, and the enhancement of NIBM will be studied, since manpower training is an issue shared by many other industries as well.

Therefore, this will be taken up in detail under Medium- to Long-term Priority Programmes in Chapter 5.

<3> Upgrading export products

The object of promoting the garments and apparel industry is to sustain the recent increase in exports and to determine the best means of achieving stable growth into the future. Taking into consideration the intensified competition in international garments and apparel trade coupled with the increase in production capacity that will result from the construction of 200 local factories, the attainment of these goals will require both the implementation of short-term programmes and medium- to long-term upgrades in the quality of export goods. At present most export items are lower-priced and lower-quality. These must first be upgraded to the middle price and quality ranges.

Success in this effort will require more extensive quality control activities, further improvements in productivity, the introduction of new manufacturing equipment including design development and CAD/CAM systems, and the use of new materials in the future. To fill these needs, MHTI, Moratuwa University, CITI, TTSC and other related organisations will draw up a plan for implementation and, if needed, obtain the cooperation of foreign aid organisations.

<4> Improvement of infrastructure and prevention of industrial pollution

With the programme of building 200 local factories under consideration, more garments and apparel firms are locating their plants outside urban areas. Also, shorter delivery times for garment and apparel exports and communication with buyers are growing in importance. To meet such needs, the government is requested to make efforts in improving infrastructure, and in particular electrical power, transportation (road, sea and air) and communications (telephone and telegram). Development of other industries and the promotion of foreign investment also call for the improvement of infrastructure.

Creation of an adequate infrastructure will require a great deal of time and money. Until a proper nationwide infrastructure can be created, however,

it is suggested that the development of industrial estates featuring basic infrastructure services be considered.

Sewing of garments and apparel does not consume significant amounts of power in comparison with other industries. Nor does it create much pollution. If fabric production, and the dyeing process in particular, is begun, however, measures to conserve energy and preserve water quality will be required. Since measures in this field lag behind in other industries as well, the government should promote medium and long-term energy conservation and pollution prevention in parallel with industrial development.

Action Programmes for Promotion of Garments and Apparel Industry

Programme	Implementing organisation	Action/Activity: Follow-up	Action/Activity: Short-term (1 to 3 years)	Action/Activity: Medium and long-term (4 years or more)
1. Short-term programmes				
[1] Strengthening of export promotion activities • Collection and supply of overseas market information • Participation in exhibitions • Hosting of seminars • Dispatch and reception of missions • Market development	EDB SLAEA Overseas Sri Lankan embassies	• Confirmation of key markets • Formulation of annual plans for export promotion activities • Deliberations with related domestic and foreign organisations • Selection of companies to be assisted	• Implementation of export promotion activities aimed at key markets	
[2] Expansion of CITI and Moratuwa University • Training in sewing skills for garments and apparel • Fostering of textile and apparel/garment technicians	MHTI CITI Moratuwa Univeristy	• Finalisation of plan for development of human resources and expansion of training • Deliberations with related domestic and foreign organisations	• Development of human resources and expansion of training • Invitation of foreign experts	
[3] Technical and managerial improvement of companies • Invitation of foreign experts • Roving guidance of factories • Hosting of seminars	EDB IDB	• Invitation of foreign experts • Selection of companies to be given roving guidance	• Roving guidance by experts for improvement of technology and management	
[4] Promotion of foreign investment and technical tieups • Garments and apparel • Fabrics and auxiliary materials	BOI EDB Overseas Sri Lankan embassies	• Preparation of action plan for promotion of foreign investment and technical tieups	• Promotion of foreign investment and technical tieups	
[5] Vitalisation of industry associations	SLAEA EDB	• Increase of members • Formulation of plan for exchanges with similar overseas organisations	• Invitation of foreign experts • Overseas training	
2. Medium- and long-term programmes				
[1] Stable supply of fabrics and auxiliary materials • Stable supply of imported goods • Promotion of domestic production	MHTI TTSC EDB BOI	• Stable supply of imported goods • Study of domestic production (finishing -> fabrics -> yarns etc.)	• Promotion of domestic production (promotion of foreign investment, fostering of privatelised textile factories, etc.)	• Stable supply of fabrics and auxiliary materials and other input goods (import and domestic production)
[2] Training of export marketing and management personnel • Training in trade • Training in business management	EDB NIBM	• Formation of consensus in the Goverment • Formulation of basic concepts and plan • Deliberations with related domestic and foreign organisations	• Strengthening and augmentation of existing trade and business management training functions • Invitation of foreign experts and overseas training of EDB and NIBM staff	• Establishment of Trade Training Centre (provisional name) or establishment of centre functions • Establishment of Productivity Centre (provisional name) or establishment of centre functions
[3] Upgrading export products	MHTI EDB Moratuwa University	• Strengthening of export promotion activities • Development of export markets	• Strengthening of export promotion activities • Improvement of quality control and productivity	• Introduction of new production equipment and technologies • Design development • Input of new materials
[4] Improvement of infrastructure and prevention of industrial pollution	MIST CISIR	• Formation of consensus in the Government through MIST initiative • Deliberations with related domestic and foreign organisations	• Development of industrial estates • Formulation of implementing plan by invitation of foreign experts etc.	• Improvement of infrastructure • Establishment of Industrial Pollution Prevention Centre (provisional name) or establishment of centre functions

2.2 Gems and Jewellery Industry

2.2.1 Items Covered

The items covered by this survey are gems and jewellery. The former category is made up of precious stones and semi-precious stones which are produced in abundance in Sri Lanka, and also diamonds which are processed in Sri Lanka. The latter category, jewellery, consists of pieces of jewellery, such as rings, earrings, pendants and necklaces, which are made using these precious stones.

Classification of SITC (Standard International Trade Classification), Revised 3 is cited in this survey, which comprises: 667.2 Diamonds (other than sorted industrial diamonds), 667.3 Precious stones (other than diamonds) and semiprecious stones and 897.3 Jewellery of gold, silver or platinum group metals. Each item also correponds to existing HS (Harmonised System) classification.

2.2.2 Outline of World Trade

1) Characteristics as International Trading Items

Sri Lanka has been known for a long time as an island with gems and takes pride in its old and traditional gem industry. Though rough stones and precious and semi-precious stones are produced in other areas around the world, Sri Lanka is blessed with many gem resources and is a leading producer of more than 50 types of rough stones.

When gems are first excavated as rough stones they are no more than natural stones. However, by cutting and polishing, these stones are transformed into beautiful dazzling gems.

The cutting and polishing of gems is a typical labour intensive industry. Spectacular growth has been seen in recent years in the cutting and polishing of gems in the Asian region. This gem industry has been sustained by low labour costs and by workers who are both dexterous and hardworking. Blessed with both rough stones and a labour force, Sri Lanka's gem industry can be expected to grow even larger in the future. What is more, jewellery are also labour intensive commodities as the manufacture of jewellery entails putting gems into rings, earrings, necklaces, etc, for which there is a heavy reliance on manual work.

While regions which produce gems are to be found only in certain parts of the world, countries which consume gems are to be found all around the world, especially among the industrialised nations. The market in Japan has recently grown so that it is now one of the biggest markets in the world after the USA. The situation in Japan has been such that sales promotion in the Japanese market by gem producing nations gradually became quite intensive.

However, since 1990 one of the effects of the recession has been to dampen sales of gems and jewellery in Japan. Because the purchase of gems shows high income elasticity as luxury items, a slump in sales during a time of recession is unavoidable.

2) Trends in the Trade of Gems

Colour stones

OECD countries occupy about 80 per cent of the world import of gems.

According to OECD statistics in 1990 OECD imports of precious stones and semi-precious stones (item 667.3) were of $2,182 million. Imports to the OECD from Thailand, the largest supplier of precious stones and semi-precious stones in the world, were worth $544 million and accounted for 25% of the total. Thailand was followed by Hong Kong at $196.89 million (19%), and Colombia at $181.16 million (8%). Together these three supplier nations exported 42% of precious stones and semi-precious stones to OECD countries. The other main suppliers are, in order, Switzerland, USA, Brazil, Germany, India, and Sri Lanka, indicating that suppliers of precious stones and semi-precious stones are either producers of rough stones or countries with superior gem processing technology. In the case of Thailand which is the largest supplier, it is a producer of gems which also has a high standard of processing technology. Its performance in this area has made it the world centre for gems.

In 1990 Sri Lanka is the 9th biggest supplier to OECD countries, import from Sri Lanka amounted to $72.25 million (3.3%).

Diamonds

In 1990 OECD imports of diamonds totalled $22,005.25 million which was roughly 10 times larger than its imports of precious stones and semi-precious stones (Table 10, 11).

The largest exporter was Great Britain which exported $3,701 million worth of diamonds, which accounted for roughly 17% of all OECD diamond imports.

Under the system where the world supply of diamonds is controlled exclusively by De Beers Consolidated Mines Ltd. through its Central Selling Organisation (CSO) headquarters in London, a supply system has been established whereby rough stones are shipped to designated rough stone processors which are also referred to as "site holders" and which are licensed by the CSO. It is possible to follow this process by looking at OECD trade statistics.

After Great Britain the leading diamond exporters are Israel, Belgium and India. Exports from Israel to the OECD were worth about $2.8 billion, which roughly represents a share of 13%, followed by Belgium at $2.4 billion (11% share), and then India at roughly $2.2 billion. Israel has its own traditional diamond processing technology and India is the largest processor of diamonds in the world in terms of volume.

These exporters are followed in 5th place by the USA, followed by South Africa, Bermuda, Switzerland, and the former Soviet Union and Hong Kong. All of these countries either produce or process rough diamonds.

In 1990 the OECD imported $93 million worth of diamonds from Sri Lanka. These imports represented a minute share of just 0.4%.

3) Trends in the Trade of Jewellery

According to OECD Trade statistics in 1990 OECD's imports in jewellery reached $7,376.36 million (Talbe 11). The largest exporter was Italy which exported some $2,457.94 million worth of jewellery, occupying 33% of total jewellery imports in OECD. The next biggest exporter was Hong Kong, followed by Thailand, France, Germany and USA.

In 1990 imports from Hong Kong was $647.26 million (8.7%), imports from Thailand was $535.7 million (7.2%).

In the same year imports from Sri Lanka amounted to 3 million US$.

4) Japan's Import Market

In the years preceding 1991 Japan's imports of gems and jewellery had grown at remarkable growth rate. However, this spectacular growth in imports started to decline in 1991. This happened as a result of the bursting of the bubble economy which was symbolised by the decline in stock and land prices, and which had a sudden impact on gem consumption. Because Sri Lanka's gem exports to Japan comprise largely of expensive items such as sapphires, rubies, cats eyes, etc, its exports to Japan have been hit hard by the decline in the market and cannot expect to recover for a while.

However, as Japan's gem and jewellery market is second in size only to the USA and also because gems and jewellery are widely favoured by consumers, once Japan is out of its current recession in the longer term the gem and jewellery market can be expected to expand even further. A return to greater exports to Japan of high quality items from Sri Lanka can be expected.

An outlook for the market for the time being may be summarised as follows.

(1) The gem and jewellery market is currently in the midst of a slump. As to how long this recession will continue and when the market will experience an up-turn trend, views of trade experts in Japan are varied: some are optimistic while others hold a pessimistic view. According to these differing views, an up-turn in the market can be expected some time from the end of this year at the earliest, or the slump can be expected to continue to at least the end of next year, if not longer.

(2) The retail jewellery market is experiencing a severe slump, with the result that both wholesalers and retailers currently have fairly high stock levels. Because even when the market does begin to improve existing stocks will need to be disposed of first, there are those in the industry who believe that there won't be a sudden expansion in imports for some while yet.

(3) Given the present trend whereby retailers are refraining from new investment such as opening up new stores, increasing their floor space, or expanding their stocks, it would seem that there will not be any growth in the retail market for some time yet. At the same time, some moves are being seen whereby businesses outside the jewellery industry are taking steps to set up in the gem and jewellery market. As a result of such moves intensified competition is anticipated in the retail market.

The world's leading suppliers view the Japanese gem and jewellery market as being extremely promising over the longer term, despite the fact that Japan is currently experiencing a recession. These suppliers are in the process of strengthening their sales promotion in the Japanese market. One such example is the diamond trader De Beers which has commenced direct sales in Japan. It has also been said that efforts by Indian interests in the sales area have recently been stepped up. There is even one jewellery retailer which has lauched TV commercials which extols the merits of gems produced in Sri Lanka.

Import trends classified according to separate items are as follows (Japan's import statistics of OECD in US$ are shown in Table 12).

[Rubies, emeralds, sapphires]

After recording an increase of 19% and 18% respectively over levels for the previous year in terms of value in both 1989 and 1990, ruby, sapphire and emerald imports to Japan dropped by 21.7% in 1991. In 1991 imports of these items were worth ¥46,891 million. The largest exporter to Japan was Thailand which exported ¥23,353 million worth of rubies, emeralds and sapphires to Japan. This was equivalent to 49% of total imports of these items. Following behind in second place was Colombia with imports worth ¥11,427 million (24%) and Hong Kong ¥3,633 million (7.6%). In 1991 imports from Sri Lanka was ¥2,941 million (6.1%) declined by nearly 20% over the previous year.

[Diamonds]

Whereas in 1989 and 1990 diamond imports to Japan increased by 15% and 19% respectively, in 1991 they declined by 24.5% and recorded a value of ¥276,955 million which was roughly 6-times that of ruby, emerald and sapphire imports. The largest exporter of diamonds to Japan was Belgium which exported diamonds to the value of ¥81.6 billion (29% of total total imports), followed by India at ¥73.7 billion (26%) and Israel at ¥68.0 billion (24%). Imports of diamonds from these top 3 exporters accounted to roughly 80% of total diamond imports.

In 1991 diamond exports from Sri Lanka to Japan totalled 8,638CT and were worth ¥635.11 million. This was equal to 2.2% of all diamond imports to Japan.

[Jewellery]

By looking at gold jewellery as a guide to trends occurring in the import market it is clear that up until 1990 there were very large increases in jewellery imports to Japan. In 1988 imports rose by 37.9% over that recorded for the previous year and in 1989 a 40.4% increase was recorded. In 1990 an increase of 21.6% was recorded. However, in 1991, when imports were worth a total of ¥86,678 million there was a drop of 4.9% over that recorded for 1990.

In terms of country of origin, Hong Kong accounted for 24% of jewellery imports to Japan (¥20.8 billion), Italy 17% (¥15.2 billion), Thailand 15% (¥13.1 billion), and France 12% (¥10.7 billion). Imports of jewellery from Sri Lanka to Japan for 1991 was ¥456 million accounted for 0.5% of the total imports.

5) U.S. Import Market

To obtain a grasp of the state of the U.S. gem and jewellery market, a look will be taken at the state of the market for jewellery.

The jewellery market grew steadily from the mid-1980s to the end of the 1980s. At the start of the 1990s, however, market growth began to slow. The reasons for this were the recession in the U.S. economy, the Gulf War, and the introduction of a new luxury tax.

The U.S. is an importer of jewellery, but has many companies engaged in jewellery manufacture as well. In 1991, domestic shipments of precious metal jewellery reached about $4 billion (estimated) and domestic shipments of costume jewellery reached $1.3 billion (estimated).

On the other hand, 1991 imports of jewellery remained at about the same level as in the previous year, reflecting the sluggish growth in consumption as a whole. The value of those imports is believed to have been about $3 billion for jewellery as a whole. Imports of precious metal jewellery totalled about $2.4 billion, about the same level as in the previous year, while imports of costume jewellery increased 3% to $550 million. The main countries of origin were Italy and Hong Kong for precious metal jewellery and Thailand, South Korea, and Taiwan for costume jewellery.

The U.S. also exports jewellery. In 1991, exports of jewellery as a whole totalled $522 million, a 4% decline from the previous year. Exports of precious metal

jewellery fell 6.5% from the previous year to about $400 million, while exports of costume jewellery rose 7% to $122 million. The main export destinations were Japan and Switzerland for precious metal jewellery and Japan and Canada for costume jewellery.

Next, the costume jewellery market, a major part of the U.S. import market and mostly supplied by the Asian NIEs and other developing countries, will be divided into four categories: high grade products, bridges, low grade products, and novelties and the features of each will be examined.

[1] High grade products: This refers to elegant fashion products using as materials base metals plated with precious metals and semiprecious stones (retail price of over $200). The end users are women in professional jobs with a preference for fine jewellery, women of means who wear these as "travel jewellery" when shopping or on a trip, etc. Much of these products are purchased as gifts. The market is large in size.

[2] Bridges: There are medium grade products and sometimes use silver or pearls ($15 to $200, central price of under $100). The main purchasing strata consists of working women. These products are also purchased as gifts for young women and teenagers.

[3] Low grade products: These are products of a low price (less than $15) made of base metals, glass, artificial pearls, plastic, paper, and other manmade materials and bone, wood, shell, and other natural materials. This is the largest market in size.

[4] Novelties: These are cheap wristbands, buttons, pins, hair fasteners, etc. Most of the products are of a humorous bent. This market is the smallest in size.

Low grade products and novelties are purchased by a wide spectrum of consumers without regard as to age, income level, or jobs. The manufacturers, however, are trying to improve the quality and design so as to reach the bridge or high grade product markets. The low grade product market, where retail prices are under $30, is where there is the most competition between U.S. manufacturers and Asian manufacturers.

The U.S. economy is gradually pulling out of its recession, so in the future it is expected that the U.S. market will grow more rapidly. Women constitute the main purchasing strata of jewellery. Further, the number of working women is increasingly

growing, so greater female purchasing power is expected in the future. It is anticipated that this will serve as a factor promoting greater growth of the jewellery market in the future.

Table 13 shows U.S. imports, by country, according to OECD statistics. Table 14 shows the state of U.S. imports and exports of jewellery in 1990.

6) Trends in Competing Asian Countries

(1) Gem Industry in Thailand

Thailand is the world largest supplier of precious stones and semi-precious stones and it's jewellery industry now ranks third in the world after Italy and Hong Kong in terms of the amount of its exports. The total gem and jewellery industry is still expanding at a rapid pace and it is anticipated that it will climb to the top spot in the world in the near future.

The fast rate at which industrial infrastructure is being put in place, as seen by Thailand's steady progress in industrialisation to date, and developments including the Jewellery Trade Centre and the Gemopolis illustrate that Thailand's gem and jewellery industry has been undergoing spectacular development in recent years.

Of particular note is the solid growth which is being seen in the diamond processing industry. Even though in 1991 the slump in the world economy brought about a drop in demand for diamonds of nearly 30%, Thailand's diamond exports for that year rose 20% compared to that of 1990 amounting to nearly 10 billion baht.

Thailand's activity in this area lies in sharp contrast to that of India, one of its competitors. Unable to comply with requests for improved quality, India had to lay off 40,000 employees in 1991. The reason for Thailand's success lies in its prompt measures to increase production efficiency and to change its production system so that it is able to meet requests for higher quality and other demands made by the market.

(2) India's Gem Industry

India's diamond processing industry is concentrated around Bombay. This industry is sustained by the low labour costs of its cottage industries and small scale firms.

Although the jewellery industry is to be found in all parts of India, each region differs in its designs and processing techniques. The main cities in each of India's regions lead the jewellery industry. These cities are Bombay, Ahmedabad and Rajkot in the west, Madurai, Cochin and Mysore in the south, Calcutta in the east and New Delhi and Jaipur in the north.

The designs and manufacturing processes used for jewellery are traditional and are far from being modern.

As for diamond processing, India is the largest processor of diamonds in the world as it carries out 70% of all diamond processing.

Diamond exporters have begun to develop jewellery which is made using diamonds processed in their country, and have started to export these items.

Factories which export jewellery made from these sorts of diamonds are to be found in India's first foreign trade zone called the Santa Cruz Electronics Export Processing Zone (SEEPZ) which is located on the outskirts of Bombay.

The SEEPZ was originally developed as an export processing zone for just electronics products, and currently has 89 factories which are engaged in electronics-related production.

A gem and jewellery complex has been built within the zone. It employs roughly 4,000 workers who are engaged in the manufacture of jewellery.

Factories sited within the zone are different from jewellery manufacturing firms located outside the zone in that they manufacture by casting, using foreign made centrifugal and gravity casting machinery. These machines include Italian-made Gallioni, American-made Memco, and German-made Inresa machines. There is an example of a technical tie-up with a Japanese company and receives design assistance and technical guidance from Japan.

Traditionally, India has exported jewellery to the Middle East where there are Indian migrants and where the locals like jewellery which has Indian designs. In the middle of the 1980s when Indian jewellery exports to the Middle East were at their peak nearly 80% of the country's jewellery exports were sent to this region. However, exports of traditional jewellery to the Middle East have slumped considerably. Today, exports of modern-style jewellery produced in the SEEPZ to

Asia and Europe and the US have increased, so that traditional jewellery exports account for less than 40% of total jewellery exports.

There are plans to establish a further 17 jewellery manufacturing plants in the SEEPZ in 1992. In 1993 between 50 and 60 plants are scheduled to be in operation and jewellery exports from the zone are expected to make up three quarters of all jewellery exports.

2.2.3 Sri Lanka's Gems and Jewellery Industry

1) History of the Industry

Sri Lanka produces more than 50 types of natural high quality gems, with the exception of emeralds and diamonds. The history of Sri Lanka's gems is very old and dates back to pre-Christian times, and they appear in a wide variety of myths and legends. It would be no exaggeration to say that the history of the gem industry goes hand in hand with the history of the country itself.

However, it wasn't until the 1960s and the 1970s that these traditional products appeared as official export products channeled through official export routes.

Processing technology for gems has diversified in recent years. In contrast to this, the mining of rough stones is still carried out following the traditional method of digging by hand.

Geudas, which are colour sapphires that have undergone heat treatment, have begun to make their mark recently as advancements have been made in treatment technology. As a result of such advances, there has been a rapid increase in the production of geudas. It was Thailand which pioneered this heat treatment technology for the geuda, and at first geudas produced in Sri Lanka were exported to Thailand where they were processed. Though it has been somewhat lagging behind Thailand, technology for the treatment of geuda has recently become known throughout Sri Lanka where it is fast catching up with the standard found in Thailand. Consequently, today a considerable volume of geuda undergo heat treatment within Sri Lanka before being exported. Some companies belonging to related industries in Japan have shown an interest in the heat treatment of sapphires. There is a large company, that has until now had little to do with gems and jewellery, is carrying out scientific research of heat treatment.

As a result of the standard of cutting technology and efficiency gains which have been brought about by advances in mechanisation in recent years, the diamond industry has shown new growth spurred on by imported rough stones and a cheap labour force.

Jewellery, which as traditional Sri Lankan craftwork has contributed to the development of a unique jewellery culture, is currently following a new path in its development. There is much interest in the future it will make for itself.

2) Outline of the Gems and Jewellery Industry

The Sri Lankan gem and jewellery industry may be divided into three different sectors. These are the mining sector, where the excavation of rough stones takes place, the lapidary sector, which entails the cutting and polishing of rough stones either produced within the country or imported, and the jewellery sector, which involves the manufacture of jewellery incorporating polished gems. An outline of these three sectors is provided below.

Mining Sector

The mining of gems in Sri Lanka is concentrated mainly in the south of the island where there are relatively small mountains and where there are irrigated rice fields. In addition to Ratnapura which is well-known, the names of the other main places which produce rough stones are Okkampitiya, Elahera and others. Scattered throughout these regions in flat wet rice paddies there are wells called pits which are used for excavating rough stones. In addition to the excavation of rough stones in the rice fields, rough stones are also excavated from rivers.

Most of the mining areas consist of stratified deposits and layers containing rough stones which are to be found 12 to 15 metres underground. Because this is not deep enough to necessitate large digging equipment excavation is carried out using traditional manual techniques.

On top of the pits there are simple roofs made from palm leaves in order to keep out the rain water and sunlight. Under the roofs there is a machine which sends air through a plastic pipe down into the pit. There is also a waste water pump which is operated electrically.

Those involved in mining include Sinhalese pit workers, land owners, those with mining rights, pump owners, and those who provide necessary materials. Once the

rough stones have been extracted the profit which is made from the sale of the rough stones is divided among these people. There is data which indicate that at the present time there are some 10,000 people who work in the mining.

Lapidary Sector

The lapidary sector, which entails the cutting and polishing of rough stones, may be divided into two parts. There is the part of the lapidary sector which processes colour stones produced in Sri Lanka and the part which processes diamonds.

[Lapidaries]

In Sri Lanka there are approximately 500 firms which cut stones. If one adds those independent craftmen who carry out similar work there would be a large number of workers engaged in this process. It is reported that There are about 250 firms which export gems.

[Diamond processors]

In Sri Lanka today there are 11 firms which process diamonds. Two of these firms are CSO site holders.

Plants which cut diamonds have an average work force of around 250 employees and all of these plants are fitted out with modern equipment. Among the many foreign companies which are to be located within the export processing zone, there are 2 companies which boast a work force of over 1,000 workers each, placing them alongside the largest in the world.

If Sri Lanka's low labour costs are taken into consideration there is the potential for Sri Lanka to rival Thailand and Israel as a diamond processing nation. In recent years these two countries have experienced a drop in price competitiveness due to the sharp increase in their labour costs.

Jewellery Sector

Due to its own deep-rooted traditional jewellery culture, jewellery in Sri Lanka is well-accepted among the people.

There is a large number of skilled workers who are engaged in the manufacture of traditional jewellery.

According to available data there are about 1,000 craftsmen who are engaged in the manufacture of jewellery which is assembled with gems and there are about 6,000 more craftsmen who are involved in the manufacture of other types of jewellery. According to another source there are some 15,000 craftsmen who are engaged in the manufacture of jewellery, 70% of whom are registered craftsmen.

3) Exports

According to trade statistics prepared by the State Gem Corporation, exports of diamonds made up the single largest group of gem exports in 1991. These exports were worth a total of 1,986 million rupees. They were followed by gems, geuda, and jewellery in that order. In 1991 exports of jewellery, which comprised the smallest group of exports, amounted to 251 million rupees.

A look at gems exports reveals that in terms of their monetary value exports of blue sapphires exceeded that for star sapphires in 1991 when 356.8 million rupees of blue sapphires were exported. In terms of export volumes, topaz comprised the largest group of gem exports at roughly 5.6 million carats, followed by star sapphires at roughly 430,000 carats and blue sapphires at 66,000 carats.

Japan was the largest importer of gems from Sri Lanka as it imported more than half of that country's gem exports.

In 1991 Sri Lanka's total exports were worth 84,378 million rupees, which represented an increase of 6.2% over total exports recorded for the previous year. In terms of their export value gems ranked fifth behind clothing, black tea, petroleum products, and rubber. However, the value of gem exports in 1991 dropped by some 19.6% over that for the previous year to 2,358 million rupees.

This decline in exports has been brought about by the general slump around the world in demand for gems.

4) Foreign Investment

According to BOI data, there are 14 instances of foreign investors having contracts with the BOI for investment in the gem and jewellery sector. Seven of these foreign investors have invested in jewellery firms, 4 in diamond processing companies, and 3 have invested in colour stones. Nine of these 14 investors are from Europe and come from Belgium, Switzerland, Germany and Great Britain.

The combined value of investments by these foreign interests was 883.27 million rupees. Their companies exported products worth a total of 5,540.8 million rupees and they employed a combined work force of 4,000 employees. Classified according to their location, 9 of these firms were situated in Katunayake, with the remaining 5 located in the outside of export processing zone.

5) Education and training

The main public education and training organisations in Sri Lanka providing education and training in lapidary and jewellery manufacture are the Lapidary Training Centre of the EDB and the training facility attached to the State Gem Corporation. In addition, the Maratuwa Technical College runs a diploma-oriented jewellery course with a capacity of 12 students a year.

The Lapidary Training Centre of the EDB has facilities in two locations outside of Colombo: Ratmalana and Battaramulla. The former facility can accommodate 40 trainees and the latter 10 trainees. The main training themes are gem cutting, setting, jewellery manufacture, and surface treatment. The training period is 2 days at the shortest and 144 at the longest. Training is provided both free and at a charge. The lectures are conducted in both English and Sinhalese.

The training school of the State Gem Corporation has facilities in Ratnapura and four other locations. Details are as follows:

(1)	Ratnapura:	Capacity 20 (gem cutting)
(2)	Colombo:	Capacity 20 (gem cutting)
		Capacity 10 (jewellery making)
(3)	Nuala eliya:	Capacity 10 (gem cutting)
(4)	Holana:	Capacity 10 (gem cutting)
(5)	Belidehiya:	Capacity 10 (gem cutting)
		Capacity 15 (jewellery making)

In addition to the above training provided by the EDB and the SGC, a jewellery school is being established operated jointly by the SGC, EDB, and the Ministry of Higher Education with the cooperation of Belgium and the EC. The school is aimed mainly at training designers well versed in jewellery making techniques who can take on the duties of managers in large-sized workshops.

The National Youth Council also is operating a one-year jewellery training course, and the National Apprentice & Industrial Training Authority (NAITA) is running a programme assisting the education and training provided by jewellery manufacturers.

While training is being provided in this way by a number of training organisations and programmes, there are still not enough absolute numbers of skilled craftsmen engaged in lapidary and jewellery making. Further, many small businesses are being pressed to improve their techniques. To deal with this growing need, there are moves being taken to establish new training organisations in addition to these existing training facilities. One of these is the establishing a Jewellery Training Centre with the support of the Lions Club of Colombo.

The National Gem Authority is scheduled to be established shortly along with the reorganisation of the State Gem Corporation. When the National Gem Authority is formally established, matters relating directly or indirectly to exports, such as the selection and dispatch of overseas trainees, will continue to be under the purvey of the EDB, but the management of the Lapidary Training Centre, which is currently run by the EDB, is scheduled to be transferred to the National Gem Authority and other matters relating to training will be centralised at the Gem Authority.

It is said that Sri Lanka requires over more 200 new craftsmen together with the number of craftsmen who are trained on the existing facilities every year in order to increase its exports of gems and jewellery in the future. Augmentation of training opportunities is therefore being sought. Even the existing training facilities of the EDB and the SGC not only have to be expanded, but also have to introduce new facilities and equipment due to the increasing age of the facilities and equipment at some of those facilities. In this regard, there is a strong desire in Sri Lanka for economic cooperation from other countries so as to assist the augmentation of educational and training opportunities.

Other uniquely limiting factors in the industry in addition to the absolute shortage in numbers of craftsmen are the low social standing of gem and jewellery craftsmen and the strong tendency for skilled craftsmen to refrain from providing guidance to newcomers entering the industry from outside the traditional gem-related families engaged in lapidary work. The biggest impact on the current shortage of craftsmen is the shortage of skilled craftsmen due to large numbers of them going abroad, in particular the Middle and Near Eastern countries, to work. In particular, this outflow of

skilled craftsmen is having a tremendous effect in the jewellery industry. Even leading jewellery makers desperately want educational and training opportunities to be increased.

6) Promotion policies and problems

In Sri Lanka in 1991 gem exports ranked fifth behind clothing, tea, petroleum products and rubber, making gems one of the country's major export items. It is essential that the promotion of gem exports is continued and that the country's various export promotion policies and investment promotion policies continue to give this sector preferential treatment. These kinds of promotion policies are currently being used by many companies which find them extremely valuable (In details, see the Appendix).

An outline of export promotion policies is provided in a later section which addresses the matter of export promotion. Provided here is a table showing the utilisation of the main promotion schemes by the gem and jewellery sector and an appraisal of these policies, both of which have been obtained through the findings of the questionnaire survey.

Use and Evaluation of the Main Export Promotion Schemes

Scheme	No. of respondents using the scheme	No. of respondents citing usefulness
Import duty rebates	7	18
Manufacture in bond	8	14
Duty concessions	7	19
Income tax concessions	30	28
BTT concessions	29	27
Exemptions of dividends	7	10
Packing credit scheme	7	14
M & L credit scheme	11	16
Pre-shipment credit guarantees	7	10
Post-shipment credit	7	12
EDISS	14	18
Market support by EDB	19	18
Product support by EDB	11	15
Company replies	59	59

Remark: These responses are multiple responses
Source: Questionnaire Survey

Compared to firms engaged in the clothing and rubber sectors fewer firms involved in the gem and jewellery sector made use of available incentives. In general, tax incentives were the most common type of incentives used, and those that used these schemes found them valuable. Although there are some firms which have made use of assistance and information services related to product development and marketing and which have found these services to be of value, there is comparatively less use of these sorts of schemes.

Using the same questionnaire survey, replies were also sought on requests for governmental assistance. The most common request for governmental assistance was for assistance with trade fairs and exhibitions, followed by requests for an information service. There were other requests related to assistance to do with marketing, such as trade missions, as well as those related to technical guidance in relation to product

development and requests for staff training. These responses show what type of help needs to be given to companies involved in the industry.

Requests for Assistance from the Government

Type of assistance	No. of replies (multiple responses)
Technical guidance	16
Guidance on quality control	6
Training of employees	17
Information service	19
Inquiry service	14
Organising trade fairs	20
Organising trade missions	17
Number of replies	59

Source: Questionnaire Survey

6) Main Promotion Organisations

(1) State Gem Corporation

Sri Lanka's gem industry is one of the country's most important industries and as such the promotion of the industry is being carried out at government level. It was for the purpose of integrating assistance and measures aimed at the gem industry that a government organisation called the State Gem Corporation (SGC) was established in 1971 under the auspices of the Ministry of Finance.

As will be shown below, the SGC is responsible for various activities related to the administration and development of the gem industry. Near future restructuring of the SGC will be taking place in the establishment of the National Gem Authority and the Gem Bank. Legislation for the establishment of these 2 new organisations to replace the SGC has already been presented to the Parliament. Whereas the SGC was responsible for the gem industry and based its activities on gem-related projects, the new organisations activities will include those related to jewellery in addition to gems.

An outline of the SGC's activities is provided below.

Role of the SGC: Issue of gem mining licences
Running of the Colombo Gem Exchange
Training of lapidarists and jewellery craftsmen
Testing and certificating
Export administration and export statistics

(2) EDB

The Export Development Board (EDB) is another government organisation which is involved in carrying out activities related to the promotion of the gem industry. The EDB's activities related to the export promotion of the gem industry have included receiving technical assistance from other countries, sending trade missions overseas, participation in trade fairs, and carrying out publicity on behalf of the gem industry. It is also in charge of the operation of the Lapidary Training Centre as part of a scheme to foster the training of craftsmen who make traditional Sri Lankan handicrafts.

It carries out the activities shown below largely through its Product Management Division.

Technical training

This project is not carried out by the Product Management Division. The purpose is to foster craftsmen who can make handicrafts for export.

Receiving technical guidance from other countries

- To date the EDB has invited experts from other countries, such as Germany, USA, Japan, and Belgium, for the purpose of providing technical guidance.
- The technical guidance which has proved the most successful has been that provided by Germany. The reasons for its success lie in the fact that the experts were sent to Sri Lanka consecutively for a long period of time each on a number of different occasions.

Participation in overseas gem and jewellery trade fairs

In addition to taking part in trade fairs held in Germany and the US, Sri Lanka took part in Japan's MAKUHARI jewellery trade

fair in February 1992, and is scheduled to take part each year from 1993 onwards.

(3) Industry Associations

The Gem industry is one of the industrial sectors having the largest number of industry associations in Sri Lanka. To date 7 different industry associations have been established. The details of each association are follows.

Sri Lanka Gem Traders Association (SLGTA)

Address	:	C/o. The Ceylon Chamber of Commerce, P.O.Box 274, 40, Navam Mawatha, Colombo 2.
TEL	:	421745-7
FAX	:	449352
Established	:	1975
Articles	:	Gems
Purpose	:	To promote the Gem trade in Sri Lanka
Number of members	:	125

Member of Ceylon Chamber of Commerce and Federation of Chambers of Commerce & Industry

Sri Lanka Jewellery Manufacturing Exports' Association (SLJMEA)

Address	:	10, Albert Crescent Colombo 7.
TEL	:	698013/14
FAX	:	699762
Articles	:	Jewellery
Number of members	:	30

Sri Lanka Jewellers & Gem Merchants' Federation (SLJ&GMF)

Address	:	265/1, R.A. De Mel Mawatha, Colombo 3.
TEL	:	575704, 209009
FAX	:	548541
Established	:	1977
Articles	:	Gems and Jewellery
Purpose	:	To promote the Gems and Jewellery industry
Number of members	:	108

Sri Lanka Lapidarists & Exporters Association

Address	:	446, R.A. De Mel Mawatha, Colombo 3.
TEL	:	573267, 573480

Sri Lanka Geuda Heat Treaters Association (SLGHTA)

Address	:	18, Milagiriya Avenue, Colombo 4.
Established	:	January 1991
Articles	:	Gems
Purpose	:	To promote the heat treatment of Geuda and the production and export of treated Geuda
Number of members	:	15

Sri Lanka Diamond Manufacturers Association (SLDMA)

Address	:	67, Dharmapala Mawatha, Colombo 7.
TEL	:	255952, 20362
FAX	:	549790
Established	:	1988
Purpose	:	To promote the Diamond processing industry in Sri Lanka
Number of members	:	12

7) Main Problem Areas

Information has been obtained on the main areas where there are problems. This has been obtained from two sources: (1) the questionnaire surveys and interviews conducted with gem and jewellery companies as part of this survey; and (2) from the observation of Japanese experts which JETRO sent to Sri Lanka with assistance from the EDB.

Production-related problems

Production elements	(1)	High price and unstable supply of raw materials
	(2)	Difficulty in securing personnel (skilled workers, production managers, international trade experts, etc)
	(3)	Inadequate equipment (cutting & polishing machinery)
	(4)	Technical limitations (geuda heat treatment)

Sales (export) problems

Export markets	(1)	Severe international competition
	(2)	Finding overseas buyers
Marketing	(1)	Lack of marketing concepts
	(2)	Insufficient information on export markets
	(3)	Inadequate sales promotion activities

Problems related to official assistance and services

Company support services	(1)	Constraints on resources of government organisation (personnel, financial, etc)
	(2)	Insufficient provision of information
	(3)	Complexity and time taken for application procedures
Business environment	(1)	Inadequate infrastructure (especially electricity, communications, transportation)
	(2)	Slowness in introducing energy conservation and conservation of the environment

2.2.4 Recommendations for Promotion Measures and Programmes

1) Basic Perspective

In formulating a detailed development plan for the promotion of Sri Lanka's gem and jewellery industry, particularly the promotion of exports, the SWOT (Strength, Weakness, Opportunity, Threat) analysis has been applied. This form of analysis looks at all the factors involved, including the internal and external demand side and supply side. This SWOT analysis looks at the comparative merits and demerits and pros and cons for the particular industry under consideration. It is thought that it is a useful method to adopt when considering a development strategy for Sri Lanka's gem and jewellery industry.

A brief outline of the findings of this SWOT analysis is provided below.

(Strength)	(Weakness)
(1) Tradition and gem stones	(1) Shortage of marketing capability
(2) Advantageous labour costs	(2) Insufficient design development
(3) Liberalised import policy - raw materials, machinery	(3) Insufficient gold refining unit
(Opportunity)	**(Threat)**
(1) Technical collaboration	(1) Competition with Thailand and other countries
(2) Direct foreign investment	(3) Outflow of skilled craftsmen

The reasons for these findings are provided below.

In firstly addressing the relative merits and demerits of Sri Lanka's gem industry, it must be said that its greatest advantage derives primarily from the fact that it is a producer of gems and therefore has a good supply of raw materials, and that it is an industry which has been supported by a firm tradition over many years. Owing to its production and deposits of more than 50 varieties of rough stones, with the exception of diamonds and emeralds, Sri Lanka is one of the top producers of gems in the world.

Thailand has currently the biggest gem industry among Asian nations, and is followed closely behind by Sri Lanka. It should be noted, however, that in terms of potential as a producer of rough stones Sri Lanka has by far and away the greater potential of the two. In Thailand, where there is a high standard of technology and marketing, on many ocassions there is an oversupply of artificial gems, as is seen in the case of heat treated sapphires. Thus, the fact that importers are turning their gaze to Sri Lanka as they seek pure, natural high quality gems says much for the potential which Sri Lanka has.

The second advantage which Sri Lanka has is its competitive labour costs. The jewellery processing industry has traditionally been a labour intensive industry, and its competitiveness is greatly influenced by labour costs.

To provide a simple international comparison, it would appear that the wages of a skilled craftmen in Sri Lanka are more than 20% lower than that of the Thai counterpart. This advantage which Sri Lanka has with regard to labour costs should continue to be a vital factor in the strength of its gems and jewellery industry.

The third advantage which Sri Lanka has is the policies which the government has adopted for the gems and jewellery industry. The various kinds of promotion activities carried out by the EDB and the different kinds of export incentives available are all contributing towards the promotion of exports. It should be said, though, that as a problem which has been cited by those involved in the industry, the problem of complexity of application procedures related to exports needs to be rectified as soon as possible.

There are three factors which put Sri Lanka in a disadvantageous position.

The first of these is the shortage in international marketing capability. Even though the reason behind the decline in Sri Lanka's gems and jewellery exports which was recorded in 1991 was the slump in the gems and jewellery markets of the main consuming nations, which was brought about the decline of the world economy, the fact that on the jewellery supply side Sri Lanka does not have sufficient marketing capability also played a part in this drop in its exports. Sri Lanka has a tendency to specialise in the supply of free size high priced gems, with sapphires being the most expensive. As for the processing and supply of somewhat less expensive calibrated stones, Thailand goes ahead Sri Lanka. One reason for this is Sri Lanka's lack of marketing capability which would, along with a capacity for technical development,

form a base for the development and processing of products which meet the needs of customers and which would quickly discern the needs of the world market.

The second disadvantage faced by Sri Lanka is its inadequate design development. In recent years designs which appeal to the consumer have proved decisive when it comes to sales promotion. This is particularly so in the case of jewellery where the design of the item plays a significant role in the consumer's decision of whether to buy or not. There is, therefore, a need to develop a design strategy which utilises the strengths of Sri Lanka's unique and traditional designs.

The third disadvantage which should not be overlooked is the inadequacy of the country's gold refining equipment. By recovering waste gold that is the by-product of processing gold jewellery and by refining this waste gold it is possible to reduce the amount of gold that is lost. At the present time this waste gold is treated using a fairly inefficient method. There is, therefore, a need to take some steps to rectify this situation.

As for the opportunities which the gems and jewellery industry has both within and outside Sri Lanka, there is the opportunity for technical tie-ups between local and foreign gems and jewellery firms. For Sri Lankan companies the advantage of forming ties with a foreign company is the increased opportunities that they will get in relation to expanding exports.

The second opportunity is to expand direct investment in Sri Lanka by foreign companies. This has already happened in the diamond processing sector where a number of diamond processing plants established through foreign investment have commenced operations. In the future there should be plenty of further opportunities for direct foreign investment, not only in the area of diamonds, but particularly in the jewellery sector as well.

The first threat facing Sri Lanka's gem and jewellery industry that needs to be pointed out is the threat posed by intensified competition from other competing nations, especially Thailand. Although Sri Lanka holds the upper hand over Thailand with regard to labour costs in that its costs are 20% lower than Thailand's, when it comes to capacity for technological development, as is seen in the case of heat treatment technology for geuda, and overseas marketing capability, Thailand's position is much stronger than that of Sri Lanka. The truth of the matter is that as far as overall competitiveness is concerned Thailand is by far and away the stronger of the two

countries. One important issue facing the Sri Lankan gem industry in the short term is how it should best compete with Thailand. At the same time, stronger competition from the gems and jewellery industries of other Asian nations such as India, Vietnam, Myanmar, China, Hong Kong and Singapore can also be expected.

The second threat facing the Sri Lankan industry is the problem of skilled craftsmen migrating to other countries. This problem has become particularly serious in the jewellery industry where there are many firms crying out for skilled craftsmen. The motive for migration of these skilled craftsmen is the difference in the wages they receive in Sri Lanka and in other countries. This migration of part of the labour force for higher wages is not seen only in the jewellery industry, but is seen among the work forces of all of the country's industries. The State Gem Corporation and the EDB have established a course for training lapidarists and craftsmen, but the capacity of these courses is such that they can only handle under 200 trainees per year. This is a far cry from what is needed to meet demand from both within and outside Sri Lanka. Therefore, a policy aimed at the training of craftsmen is urgently called for.

2) Issues for Export Promotion

Outlined below are the issues which are considered important in the future promotion of exports. There is plenty of potential for Sri Lanka's gem exports in each of the three areas outlined below.

(1) Expansion of the colour stone sector

The export of various types of free size colour stones, that is, the export of sapphires and high grade single stones, is the area in which Sri Lanka does the best and from where it exports its largest single group of stones. In addition to the level of demand by consumer countries for single colour stones it is estimated that the greatest potential for demand lies in the area of calibrated stones. Given this situation, as a supplier of colour stones, Sri Lanka needs to expand its supply of calibrated stones and to take steps to increase its exports of these stones. In the case of Japan which is Sri Lanka's most promising market for gem exports, even though the current market climate is such that demand for high quality single colour stones has been all but saturated, the demand for calibrated stones is beginning to show an upturn. Those involved in the industry in Japan are all agreed that if there were a supply of calibrated stones that would be able to meet requirements relating to quality, delivery, volume, and all the other needs of the Japanese market there

would be a large number of importers who would be interested in importing a large quantity of calibrated stones.

As far as the Sri Lankan side is concerned this begs the question as to whether the larger suppliers, in particular, are quietly confident that they will be able to meet the demands which Japan has for calibrated stones, regardless of the levels of volume or quality at which they are currently operating. At the present time the greater part of demand for calibrated stones by the Japanese market is being met by exports from Thailand. It is regarded within the market that Sri Lanka is not supplying to Japan the sort of calibrated stones which are being sought by the Japanese market.

Sri Lanka will have to take a number of steps if it is to break into the Japanese market for calibrated stones. These include having to securing supplies of raw materials for production, improving their gem processing technology, developing products which suit the needs of the Japanese market, opening up sales channels as a part of marketing, and carrying out promotions in order to develop these new sales routes.

(2) Expanding diamond processing

Of all the various sectors of Sri Lanka's gem industry it is the diamond sector which produces its highest value of exports. Sri Lanka relies on imports for all of its diamond raw materials and because of this all of the export value of diamond products does not, compared to other product exports, contribute to the acquisition of net foreign currency. Nonetheless, the added value which is gained through the processing of diamonds does contributed to the country's exports and to its acquisition of foreign currency. Given that diamond processing also contributes to increased employment opportunities for the local population and for raising the standards of the gem industry as a whole, it is recommended that Sri Lanka take measures to expand this sector.

As for the leading processors of diamonds in Asia, there is India which is well-known as a processor of small diamonds or "mele" as they are known and also Thailand which has been expanding rapidly in recent years in this area. Also, there are those who think that it is inevitable that some time in the future diamond processing will shift into China especially in Shanghai, a country which has the advantages of a skilled and abundant labour force and wage competitiveness. Thus,

it would seem that international competition will intensify with regard to the processing of diamonds. As a country that has already built a strong base for itself as an Asian country that processes diamonds, it is recommended that Sri Lanka take steps to upgrade its gem processing technology and that it give consideration to enticing international diamond processors to take part in its diamond processing industry.

There is one diamond processing plant in Sri Lanka that was established with local capital that has been successful in exporting to Japan because of its high standard of technology and quality control. In this case technical guidance was provided by an Israeli expert who was stationed in the plant and who also was able to contribute to maintaining a good standard of quality. There is every likelihood that this sort of success story will be repeated in the future.

(3) Development of jewellery exports

As far as exports of jewellery from the Sri Lankan industry are concerned, exports of diamond jewellery is, needless to say, still small when compared to exports of colour stone jewellery. Though exports of jewellery to Germany have been increasing at a steady pace, it would appear that jewellery exports to Japan have yet to get off the ground. However, it is because of this that there is all the more potential for exports to Japan and that this is an issue which is deserving of attention. It would appear, therefore, that the greatest potential for growth in the future lies in this sector. It is also recommended that steps be taken to expand exports of jewellery made using gems that are produced in Sri Lanka. By doing so it will be possible to increase the added value of these export products.

There are a number of issues which need to be looked at if Sri Lanka is to be successful in exporting its jewellery products to Japan. The quality of the jewellery, in particular the quality of the precious metals used for settings, delivery schedules, and the development of designs which are suited to the Japanese market are all important issues which need addressing. In the case of Germany, frequent trips by German buyers to Sri Lanka have led to frequent opportunities to provide technical guidance, and this sort of exchange has even led to the formation of a sister city relationship between Sri Lanka's main gem producing area Ratnapura and the jewellery town of Idar-oberstein in Germany. Thus, interchanges between the industries of both of these countries have borne fruit. Because Japan has the same sort of attitude, similar exchanges between Japan and Sri Lanka would also not be

limited to business alone, but would lead to the opportunity for jewellery to build a link of friendship which would join the two countries together.

3) Main promotion programmes

To attain the above-mentioned three targets, it is necessary to implement comprehensive promotion measures for the gem industry. What is required is a comprehensive policy which integrates all aspects from raw materials through to products and includes research and development, processing technology, marketing, and the establishment of infrastructure.

Here, the tasks which should be taken up first due to the limited amount of resources are put together as a short-term programme, while the measures necessary for strengthening the industrial structure and the industrial base and enabling sustained continued have been incorporated in a medium to long-term programme.

(1) Short-term Programme

[1] Assistance in development of products and markets to 20 companies

A total of 20 companies will be selected, 15 jewellery makers and 5 processed gem exporters (mainly manufacturers of calibrated stones), which are considered to have a desire to develop export markets and to have the foundations suitable for increasing export production in the future. These will participate in an aid programme to assist their export growth through a series of aid packages.

Experts suitable for implementation of this programme should be invited from other countries through the EDB. The opinions of these experts will be incorporated and assistance will be provided to the 20 companies selected by the EDB as follows: (The following individual programmes are not intended to be implemented across the board for all the companies, but will be implemented only as considered necessary in view of the actual situations in the respective companies.)

- Diagnosis of companies
- Diagnosis of potential possibilities of export growth
- Technical guidance (short-term basis or long-term basis)
- Marketing guidance tailored to export markets

- Guidance in participation in trade fairs in key consuming countries
- Augmentation and strengthening of facilities and machinery

[2] Augmentation of technical guidance to individual companies by industry experts

To date there have been many instances in which experts have been dispatched from European countries and the U.S. to provide technical assistance to the gems and jewellery sector in Sri Lanka. These instances of assistance have borne fruit in the areas of product development and quality control, etc. The technical guidance by experts dispatched from Japan is also expected to be much strengthened, however. In the future, it is considered necessary to dispatch more experts from Japan and improve the level of technical guidance. In the case of jewellery for which it is considered both necessary and useful to receive technical assistance which takes the demands of the Japanese market into account, it would be desirable for experts to be dispatched to the industry for long periods of time.

Throughout this survey, there were requests from Sri Lankan companies desiring to obtain the services of foreign experts in technical guidance relating to jewellery making. In response to these requests, specific steps were taken to request the related organisations to dispatch experts. It would be desirable to increase the number of such experts dispatched in the future.

[3] Dispatch of Technical Trainees Overseas

The system of dispatching technical trainees overseas will be augmented.

It is necessary to augment the system of dispatch of technical trainees overseas, particularly at the EDB, so as to contribute to the training of experts in fields, such as marketing, design development, and product development, necessary for the development of suitable export products. Japanese small businesses have in the past accepted technical trainees from Sri Lanka. Further, in other foreign countries as well, it is believed that a number of companies would be happy to accept technical trainees from Sri Lanka.

[4] Assistance in R&D and guidance in product development

To handle the key tasks considered essential to tackle on a specific basis for the future development of the Sri Lankan gems and jewellery industry, it is necessary to use foreign experts to assist R&D and provide guidance in product development and marketing. The channel for inviting such foreign experts in this case would be the EDB or the State Gem Corporation. The experts would obtain a grasp of the situation in each of the following areas from a technical and expert perspective and then would recommend assistance programmes where foreign economic cooperation is available and would recommend specific action programmes and provide the requisite cooperation for measures which should be taken by the Sri Lankan side.

The tasks which would desirably be taken up as themes of these cooperative programmes are as follows:

A: Development of calibrated gemstones

A large demand is expected in the future for calibrated stones in the Japanese market and other export markets. At the present, it is considered rather difficult for Sri Lanka to supply gemstones repeatedly of the quality, delivery, and lot sizes exactly requested by the major importing countries, in particular the Japanese market. To deal with this, it will be necessary to obtain the cooperation required to develop calibrated stones meeting the requirements of individual export markets and to assist specific marketing efforts for individual country markets.

B: Technical development of geuda heat treatment

The heat treatment of geudas began about 15 years ago in Thailand, which first developed the technology. At the present time, about 20 companies in Sri Lanka have facilities for heat treatment. The rough stones for geudas mined in Sri Lanka, however, continue to be exported to Thailand even now. They are heat treated in Thailand and then exported to the Japanese and other markets. The technology adopted in Sri Lanka is considered to be improved to farther advanced stage to that of Thailand. The related Sri Lankan industry has a strong desire for assistance from major aid donor

countries in the area of research and development of heat treatment technology.

To deal with this situation, cooperation is sought in determining the more desirable form of trade of Sri Lankan geudas in the gem industry of Asia and assisting the development of heat treatment technology in Sri Lanka.

C: Augmentation and strengthening of precious metal refining and alloying plants

The scrap pieces of gold, silver, platinum, and other precious metals which are produced in the process of making jewellery can be reclaimed and reprocessed for reutilisation. The Sri Lankan jewellery industry is performing reprocessing in line with this, but the methods it employs and the efficiency of the same are not sufficient compared with the reprocessing performed in Europe, the U.S., and Japan. Steps have to be taken in this area to assist the future development of the jewellery industry.

It is necessary to establish the optimal method for reprocessing in Sri Lanka and to obtain cooperation, if possible, for the required assistance.

[5] Assistance to participation in trade fairs in major countries

Sri Lanka already participates in trade fairs in the U.S., Europe, and Asia under cooperation programmes of various countries and has succeeded to a certain extent in publicising Sri Lankan products overseas and in creating direct business opportunities. Such trade fairs are held frequently in the export destinations. Sri Lanka participates mainly in trade fairs in the U.S., Europe, and Asia (Japan) and must continue to participate in them in the future. To facilitate participation by Sri Lanka, it would be effect to invite experts to provide technical guidance and other requisite assistance. There are also reputable trade fairs which Sri Lanka has yet to participate in. For example, it could be meaningful to the Sri Lankan industry if it could participate in the future in regional trade fairs in specific Asian production centres.

(2) Mid to Long-term Programme

[1] Augmentation and strengthening of education and training for fostering craftsmen

The expansion and the strengthening of the functions of the EDB's Lapidary Training Centre, the State Gem Corporation's and MHE's existing training facility would contribute to the fostering of craftsmen. In addition to the two training facilities mentioned above there is also the proposal to establish the new Jewellery Training Centre in Colombo. After the State Gem Corporation is reorganised into the Gem Authority, the Authority should be used as the base for tying together the functions of these training organisations and for making more effective use of the aid schemes of foreign aid organisations.

Southern and central Provincial Councils might wish to make specific requests for assistance in the future for such training facilities, given that there is a high level of demand for the granting of resources, in particular the granting of cutting and polishing machines.

[2] Expansion of exchanges among production areas and industries

There are several leading production areas of gems and jewellery in Sri Lanka, such as Ratnapura for rough stones and Galle, Kandy, etc. for jewellery. An expansion of the interchanges between these production areas and overseas production areas and industries would be desirable. Japan's Kofu region in Yamanashi Prefecture, a renown production area, is engaging in increasingly close exchanges with Thailand, Brazil, and China through the promotion of trade and investment. Japanese production areas and industries, however, would probably also find it advantageous to promote exchanges with Sri Lanka in the medium and long term. It is hoped that Sri Lanka will dispatch technical trainees to Japanese production areas (medium and long term or short term), that the necessary steps will be taken for realisation of participation of Sri Lanka in the trade fairs in Kofu, that business meetings will be held, and that industry missions will be dispatched so as to promote further exchanges.

[3] Implementation of PR and sales promotion programme in specific export markets

The image of Sri Lanka should be established in the key export markets over the long term and the image of Sri Lanka in the key export markets should be polished to contribute to greater exports of its gems and jewellery. It is considered necessary for the Sri Lankan side to strengthening the publicity activities in major exporting countries. Further, in the individual export markets, it is believed essential that the necessary steps be taken to host events on a commercial basis, such as a comprehensive "Sri Lanka Fair" at Japanese department stores.

In 1992, the EDB sponsored Sri Lanka Diamond Mission visited Japan. This was considered most effective in achieving its desired goals. Such trade missions should be sent in the future not only for diamonds, but also for coloured stones, calibrated stones, and jewellery.

"Expo '92", which has established good reputation at both inside and outside the country, is expected to repeat after 1993 as well. Hopefully, the required cooperation will be given from the related organisations of the main import markets of Sri Lankan products.

Action Programmes for Promotion of Gems and Jewellery Industry

Programme	Implementing organisation	Action/Activity		
		Follow-up	Short-term (1 to 3 years)	Medium and long-term (4 years or more)
1. Short-term programmes [1] Assistance in development of products and markets to 20 specific companies (15 jewellery companies and 5 gem companies)	EDB	• Preparation of guidance plans • Selection of companies • Invitation of foreign experts	• Diagnosis of companies • Diagnosis of potential possibilities for augmentation of exports • Technical guidance • Marketing guidance • Assistance in participation in trade fairs of key countries	• Assistance in product development • Marketing assistance • Technical development • Augmentation and strengthening of facilities and machinery
[2] Augmentation of technical guidance to individual companies by industry experts	EDB	• Selection of companies covered • Invitation of foreign experts • Guidance to individual factories	• Active use of expert dispatch schemes of foreign technical assistance organisations	
[3]Dispatch of technical trainees overseas	EDB	• Selection of trainees dispatched	• Securing places receiving trainees • Active use of public training schemes	
[4] Assistance in R&D and guidance in product development • Development of calibrated stones • Technical development of geuda heat treatment • Augmentation and strengthening of precious metal refining and alloying plants	EDB SGC	• Preparation of plan for development and guidance • Selection of experts • Selection of companies • Preparations for seminars	• Invitation of foreign experts • Overseas training	
[5] Assistance to participation in trade fairs in major countries	EDB	• Invitation of foreign experts • Selection of companies and assistance	• Continued participation in trade fairs in the U.S., Europe, and Asia	• Participation in new trade fairs
2. Medium- and long-term programmes [1] Augmentation and strengthening of education and training for fostering craftsmen • Augmentation and strengthening of existing training facilities (EDB, SGC, and MHE) • Assistance in plans for establishment of new training facilities etc. • Overseas dispatch of trainees	EDB SGC MHE	• Formulation of plan for expansion of development and training of human resources • Deliberations and coordination with related domestic and foreign organisations	• Reorganisation of existing training organisations and augmentation and strengthening of same	• Invitation of foreign experts • Provision of equipment and facilities • Overseas dispatch of trainees • Establishment of new facilities
[2] Augmentation of exchanges among production areas and industries	EDB	• Formulation of exchange programme • Deliberations and coordination with related domestic and foreign organisations	• Establishment and strengthening of opportunities for exchanges	• Mutual dispatch of trade missions • Hosting of business meetings • Participation in trade fairs • Running of marketing activities
[3] Implementation of PR and sales promotion programmes in specific export markets	EDB Overseas Sri Lankan embassies	• Strengthening of export promotion activities • Development of export markets	• Augmentation of opportunities for PR • Strengthening of marketing activities	• Augmented implementation of PR activities • Sponsoring of events (general Sri Lanka fairs) • Dispatch of trade missions