

VII-5-3. Analysis of Marketability

(1) Marketability of Malaysian Sample Goods

1) Competitive Power from the Viewpoint of Design

Evaluation was carried out of the samples obtained from Malaysia for the survey from the viewpoint of design. In other words, it was determined whether consumers would accept the commodity or if enough value has been added to it. Accordingly, the evaluation differs from market to market. Here the evaluation is based on the Japanese market.

Regarding the samples collected, some aspects on which improvement should be made are described as follows. The total number of pairs of shoes evaluated was eight. The number of samples corresponding to each aspect is written in brackets [].

- a) The colour of the outer sole is not liked in Japan. [five pairs]
Dull and blackish colours were found where a sense of transparency is desired.
- b) The design of the outer sole was thought to be old-fashioned. [one pair]
- c) Selection and arrangement of the colour were not liked in Japan. [one pair]
- d) The colour of the foxing tape and that of the upper part were not the same. [two pairs]
In Japan, the same color is preferred.
- e) The material of the upper part was roughly woven. [one pair]
More finely woven material is preferred in Japan.
- f) The products do not carry their brand. [three pairs]
It is preferable that the brand be attached to the product.
- g) The shoelaces were either too thick, too short or too hard. [three pairs]

As has been shown in the above, all of the points are related to what is called "taste." However, the evaluation was conducted by a representative rubber footwear manufacturer in Japan which does constant research on the Japanese market and therefore it may be considered the voice of the market rather than just "taste."

2) Grasp of the Market

In Japan, a design is developed one year ahead of the placement of the product on the market. Market trends are grasped by researching and analysing the general direction of the fashion world such as the trends in the apparel industries, the characteristics of best selling products and other related industries. As for upper materials, the trends of colour tone, designing and weaving are to be surveyed and analysed. The footwear industry tries to be in harmony with other industries and accordingly it is necessary for it to stay abreast of all trends and to prepare development budget for this purpose.

High value-added products in the Japanese market have thus been produced as the result of much advanced planning.

Although the Malaysian samples surveyed this time were not the type that could compete with high value-added products from other competing countries, it is recommended that the needs of that market be grasped precisely. The above mentioned development is truly recommended as a method to raise competitive power if higher value-added products are the final target for Malaysia.

3) Quality Evaluated from the Viewpoint of Marketability

The evaluation results on the quality of Malaysian products are shown in Table VII. 5-5.

Table VII. 5-5 Quality Evaluation of Malaysian Rubber Footwear Samples

Samples		A	B	C	D	E	F	G	H	Total(%)
Performance Testing	Good	8	12	11	12	12	13	11	10	(82) (100)
	To be Slightly Improved	4	1	0	1	0	1	2	3	(11) 12
	To be Improved		2	0	3	0	2	0	0	(7) 7
Appearance Testing	Production Related	6	9	8	6	8	4	10	7	(66) (100)
	Good	5	2	3	5	3	8	1	3	58 (34)
	To be Improved									30
	Design Related	5	6	6	6	6	2	4	4	(72) (100)
	Good	2	1	0	1	1	4	3	3	39 (28)
	To be Improved									15

Notes : Figures are the number of evaluation items. The reason why the total numbers are not the same is that some items are not evaluated.

Various aspects which should be improved to enhance competitive power have been described so far. However, the evaluation, as shown in Table VII. 5-5, awards very high marks overall. For performance, a score of 82% is given and 66% is shown for appearance related to production technology. Appearance related to design receives a score of 72%. On the other hand, not all of the samples were of high quality. There were some points on which improvement could be made. Accordingly, it is necessary to improve the products individually to strengthen their competitive power.

As for marketability, from the consumer's point of view, the performance test results should all be good. The appearance test results related to production technology should also be good because appearances have improved completely by the consumers' requests. Concerning the appearance of the design, a commodity is selected based on personal preference. Therefore, if it suits the buyer's taste, it can sell regardless of a high price. This trend is observed in rubber footwear for school children. With this in mind, the items in Table VII 5-5 which require improvement should be improved at an early stage. If this is done, Malaysia could obtain strong competitive power for its products.

(2)The Price Competitiveness of the Sample Products

1) Prices of Malaysian Products

The samples obtained for this survey were presented with their export prices and are listed in Table VII.5-6.

Table VII. 5-6 Comparison of Export Prices of Malaysian Products and Average Import Prices in Japan

Sample	Malaysian Export Price	Average Import Price
A	FOB US\$ 4.2	FOB US\$ 4-4.5
B	5.2	4-4.5
C	7.0	6-6.3
D	2.8	4-4.5
E	4.0	4-4.5
F	7.8	4-4.5
G	4.5	4-4.5
H	3.6	3.5-4

Source: Survey Questionnaires in Malaysia and Interviews in Japan

The average import prices for Japan are the present market prices of the same kind of products from Korea or Taiwan. The table shows that samples B and F are high, C is slightly high in price compared to the corresponding prices in Japan. The prices of the other products are more or less the same as those of Korea and Taiwan. Sample D is cheaper. To maintain competitiveness in imports, it is recommended that the prices of products be lower than those of Korea or Taiwan.

Incidentally, sample D is attractive in price but not of good quality. In the market, a low-priced commodity must still be of good quality to be welcome.

2) Export Prices Based on Japanese Samples

Two kinds of rubber footwear were brought from Japan for the present survey and their production prices were calculated when made in Malaysia. Some of the manufacturers concerned cannot make both kinds and the prices calculated by the maker are shown accordingly in Table VII.5-7.

Table VII. 5-7 Export Price of Japanese Samples

Company	Export Price (FOB)		Remarks
	Sneakers	Jogging Shoes	
A	M\$10.8	M\$ --	Average Import Price in Japan
B	13.0	28.0	
C	10.0	--	Sneakers M\$10 - 11 FOB
D	10.8	--	Jogging Shoes M\$20 - 21
E	10.0	--	

Source: Survey Questionnaires and Interviews in Japan

There is nothing remarkable to be noted from the table except that the sample of maker B is slightly expensive. Accordingly, the prices are competitive if the quality is good and there is no trouble with delivery.

3) Cost Analysis from a Macroscopic View

Figures concerning the standard cost and cost composition of an individual firm, by nature, should not be publicised. Accordingly, strict cost analysis of any firm is impossible. Thus the means for improving the competitiveness of Malaysian products

were concluded by analyzing some of the results related to cost analysis which were obtained from the survey.

a) Cost-related Data

From the survey, the following aspects are clarified.

[1] Annual sales per capita are shown in Table VII.5-8.

Table VII. 5-8 Comparison of Annual Sales (1987)

Classification		Annual Sales per Capita	
Average of Malaysian 7 Firms		¥2.75 - 0.58	Million/Capita/Year
Japanese Firms	3 Main Firms	¥25.30 - 19.25	Million/Capita/Year
	Medium Scale Industries	¥15.23	Million/Capita/Year

Sources: Malaysia; Survey Questionnaires (M\$1 = ¥50)

Japan; Main Firms : Securities Report

SMI Firms : Cost Index of SMI (1988)

The survey results show that the standard productivity of the Japanese manufacturers, from a microscopic view, is about 10 times that of Malaysian firms.

[2] Annual wages per capita are shown in Table VII.5-9.

Table VII. 5-9 Annual Average Wage of Rubber Footwear Industry

Country	Annual Average Wages per Capita		Remarks
Malaysia	US\$2,122	(10)	1988 (M\$1 = US\$0.4)
Japan	22,322	(100)	1987
Hong Kong	7,137	(32)	1988
Korea	5,609	(25)	1987
Taiwan	4,813	(22)	1987 - 1988

Sources: Malaysia : Survey Questionnaires Refer to Table VII. 2-21.

Japan, Others : Japan Rubber Footwear Manufacturers' Association

Note: Figures in () are shown as Japan at 100.

The results show that the average wages in Malaysia, from a macroscopic point of view, are around one tenth those of Japan.

[3] The itemised ratio of production costs is shown in Table VII.5-10.

Table VII. 5-10 Composition of Main Production Costs of Rubber Footwear

Cost Item	Malaysia		Japanese Small & Medium Scale Industries	Remarks
	Case A	Case B		
Materials	53.5%	60.6%	48.9%	Management • Sales Cost/Total Cost
Labour	21.0	18.5	20.4	In case of B : 19.0%
Sub-Contract	2.2	0	20.3	In Japan : 19.2%
Others	23.3	20.9	10.4	Almost the Same Figures
Total	100	100	100	

Sources: Malaysia : Case A. Survey Questionnaires Refer to Table VII.-19
Case B. Quotation Based on Japanese Samples
Japan : Cost Index of SMI

As is shown in the table, the survey clarified, from a microscopic point of view, that for raw material costs, Malaysia's ratio is 55% while Japan's is 49%. Labour costs for both countries are 20% but for the cost of sub-contracts only the Japanese figure - 20% - was listed.

[4] The production efficiency of assembly lines in achieving the same amount of production as in Japan is shown in Table VII.5-11.

Table VII. 5-11 Productivity of Rubber Footwear Production Lines

Productivity	Malaysia 68 - 33	Japan 100
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Source : Survey Questionnaires Refer to Table VII. 2-5,
Table VII. 2-6

Note : Japan = 100

The table shows, from a microscopic point of view, that the efficiency of the Malaysian assembly line is around one half of that of Japan. Regarding sewing work, Malaysia relies partly on subcontracting, whereas the Japanese footwear manufacturers place all orders with subcontractors and these subcontractors have more employees than the footwear manufacturers. This is shown in the cost for outside orders in Table VII.5-10.

b) Assumption of a Cost Structure

A cost structure which can explain, without contradiction, all four aspects clarified in the survey is shown in Table VII.5-12.

For simplification, approximate figures are used here.

Table VII. 5-12 Composition of Production Costs of Rubber Footwear Manufacturers

Cost	Malaysia		Japan		Malaysia/Japan
		%	%	%	
Total Cost					
Production Cost					
Material	55	55	245	49	
Labour	20	20	100	20	
Sub-Contract	0	0	100	20	
Others	25	25	55	11	
Sub-Total	100	100	500	100	80.8
Sales-Management	24		119		19.2
Total	124		619		100
Sales	124		619		
Output	10		10		1 : 1
No. of Employees	20		10		2 : 1
No. of Sub-Contract Employees	0		10		
Labour per Head	1		10		1 : 10
Company Labour	20		100		
Sub-Contract Labour	0		100		
Sales Productivity	6.0		61.9		1 : 10
Unit Price	12.4		61.9		1 : 5

Source: Survey Questionnaires

As is shown in table VII.5-12, the cost of the product in Malaysia is one-fifth of that in Japan. The actual unit cost of the product in Japan is impossible to know because footwear manufacturers produce other products as well and also, such data is not publicised.

On the other hand, data for the unit cost of sales and the amount of sales by the manufacturer could be obtained and the unit cost of the product calculated from them. This is shown in Table VII.5-13.

Table VII. 5-13 Sales Unit Prices of Malaysian Rubber Footwear

Company	A	B	C	D	E	F	G	H
Unit Price (M\$)	8.7	10.3	12.8	8.5	8.0	7.9	5.1	8.9

Source : Survey Questionnaires

Note : Only Canvas Shoes, Excluding Boots, Sandals and Slippers,
Including both Domestic and Export Prices.

As is shown in the table, the unit cost is less than M\$10 or approximately ¥500.

The unit costs of Japanese products, although they are not clarified, are never under ¥500 on the assumption of the commodities sold.

c) Interpretation of the Analysis Results

The above mentioned evaluation indicates that it is desirable that Malaysian footwear manufacturers seek higher-grade materials to produce higher value-added products. It is also recommended that they maintain the current production efficiency if they begin producing products of a more complicated nature. Again, it is recommended that development of higher value-added products be advanced and the improvements be made to increase sales.

When developing in this direction, the low labour costs which contribute to competitiveness could be of great significance.

VII-6. Future Direction

VII-6-1. Current Problems

The scenario of promotion of rubber footwear industry is shown in Fig. VII.6-1. The bottlenecks in production and sales should be cleared and the access to world markets be improved in order to promote rubber footwear industry and increase its export.

Malaysia's domestic market for rubber footwear is in a state of oversupply because of the small population (16 million) of the country and the import of products from other countries.

Under the circumstances, main priority should be given in determining the future direction of the country's rubber footwear industry to setting a target on the expansion of sales in overseas markets.

Fortunately, exports of Malaysia's rubber footwear have been on the rise, especially to Europe, Australia and the United States, helped by the recovery of the world economy.

Undoubtedly, a significant factor in the upward trend of exports is the effort on the part of each manufacturer to expand exports. However, it must also be pointed out that a relative deterioration in competitiveness of Taiwanese and Korean products due to increasing labour costs and the appreciation of currencies against the U.S. dollar have been another element in the export growth of Malaysian products.

The current market environment provides a good chance to expand export of Malaysia's rubber footwear. To set up a solid basis for promoting a sustained growth on a long-term range, an array of problems must be resolved first, such as lowering production costs, improving product quality and developing higher value-added products. Problems facing Malaysia's rubber footwear industry are summarised below:

(1) Rise in Raw Material Prices

Prices of various raw materials including natural rubber have been soaring for the past one year. Almost all rubber footwear manufacturers cited the rise in raw material cost as one of their problems.

(2) Necessity for Rationalisation

Promotion of rationalisation efforts is apparently required to create new domestic demand and to strengthen export competitiveness, taking into account that price levels are

relatively high compared with people's income. Many possibilities still remain for cost-cutting efforts, particularly if attempts are made to implement small-improvement methods.

(3) Insufficient Information on Rationalisation Measures

Obstacles to the strengthening of efforts for rationalisation are a lack of opportunity for mutual exchange among manufacturers, difficulties in acquiring information on trends in rationalisation measures and difficulties in obtaining texts or reference books which are helpful in discussing ways for the measures required.

(4) Necessity for Standardisation

Because of insufficient standards which serve as a sort of guideline for the nation's quality levels, it is difficult to improve quality consciousness. As a result, operations are underway without sufficient test facilities.

(5) Necessity for Higher Quality Level

In terms of quality, export products must meet both the requirements of the export market and guarantee homogeneity among products. Accordingly, it is necessary to understand exactly the levels demanded by customers in terms of quality and to properly deal with their requirements. In addition, it is also required that a well-established quality control system be set up to maintain quality levels.

(6) Weak Peripheral Industry

While high quality raw materials for uppers, such as cloth, are available from domestic sources, there are still problems to be resolved with the supply of moulds and lasts. As for accessories, some items are still not produced by domestic manufacturers.

(7) Tighter Labour Supply - Demand Situation

The rapid development of electronics and electric industries has been making it difficult for some manufacturers to secure a sufficient labour force if they are located in areas where manufacturers of electronics and electric industries exist.

(8) Lack of Information Required for Export Promotion

There are strong requests for information regarding overseas markets and technological data because of the unavailability of information in these areas at the level of each manufacturer. Efforts on the part of the manufacturer are required to prepare materials for presentation of the firm's outline and products.

(9) Lack of Operating Capital

Small- and medium-sized manufacturers tend to often face a lack of operating capital because additional expenditures are required to purchase raw materials if they try to expand exports on their own.

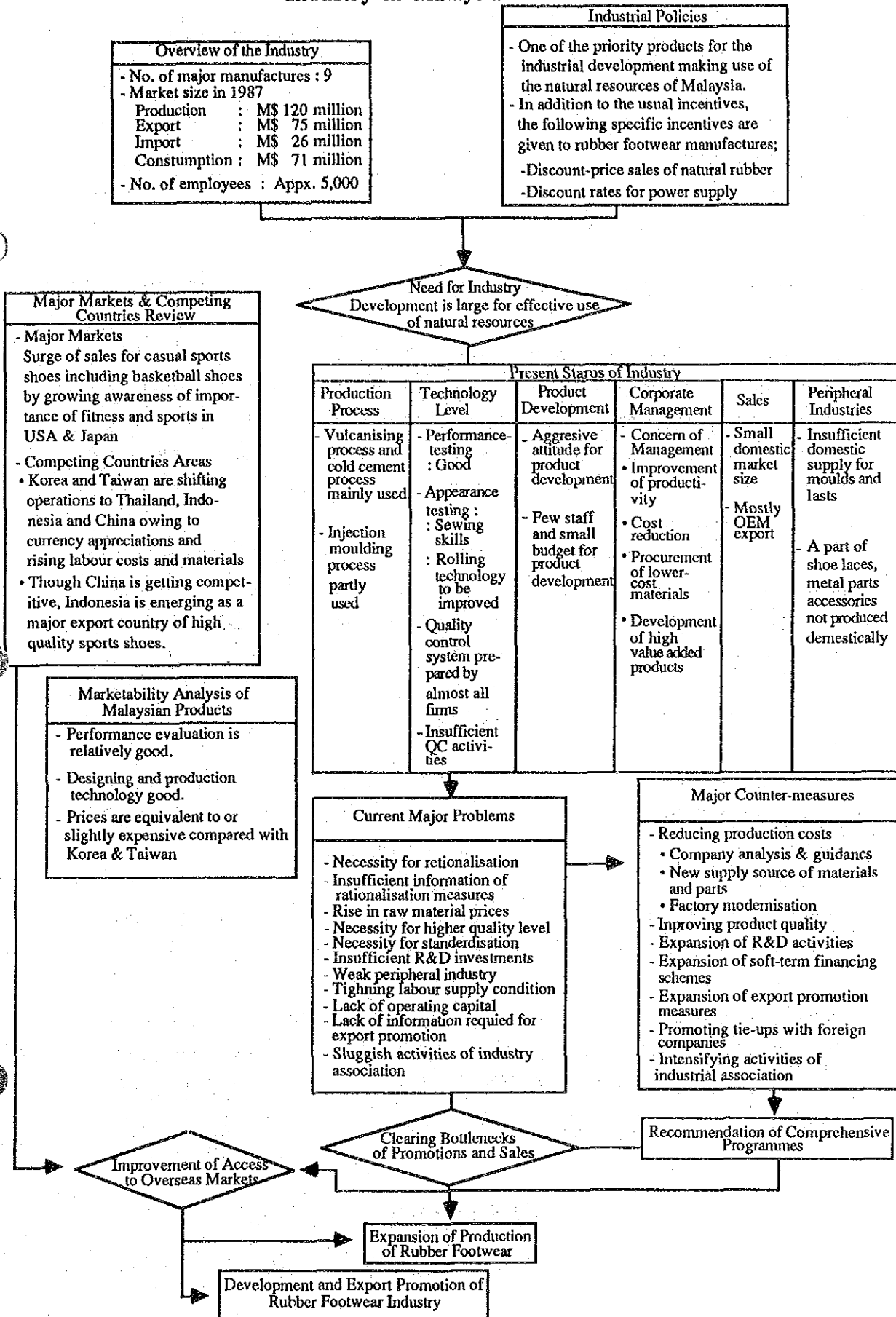
(10) Insufficient R&D Investment

Many manufacturers are showing a positive attitude toward developing new products. In reality, however, most of them, except for some large firms, do not have test production laboratories with a sufficient number of personnel for the production of samples. Generally speaking, R&D investment is too small with many manufacturers, except with the large firms. Even at governmental institutions such as RRIM, development of applied technologies required for the commercialisation of new products has not been on the right track. Under the circumstances, technology transfer to small- and medium-sized firms is just beginning.

(11) Sluggish Activities of Industry Associations

In comparison with Japan, Korea and Taiwan, the activities of Malaysia's industry associations seem to be insufficient in the areas of supplying information about technologies and market trends in overseas and human exchanges with overseas rubber footwear industry associations. This is because the industry associations in the rubber footwear industry are not well organised.

Fig. VII. 6-1 Scenario for the Promotion of the Rubber Footwear Industry in Malaysia



VII-6-2. Measures to Achieve the Goals of Development Scenario

The process to problem solving measures is shown in Fig. VII.6-2. These measures are presented as measures solving the present major problems facing the Malaysian rubber footwear industry obtained through the field survey of the industry and the analysis in Japan of Malaysian rubber footwear.

(1) Implementation of Cost-Reduction Measures

First, efforts should be made for proper maintenance and handling of machinery and equipment as well as to eliminate waste in each production process. To that end, corporate diagnosis and guidance on improvements by experts should be conducted.

Second, efforts for cost reduction should be strengthened by finding new sources of cheap raw materials and components, by introducing import duty exemption and by simplifying import procedures.

Third, rationalisation and modernisation of machinery and equipment should be promoted in preparation for a possible shortage of high quality labour in the future. The introduction of special low-interest loan schemes should be considered to promote investment for rationalisation and modernisation.

(2) Strengthening of Quality Improvement Campaigns

It is urgent that total quality control (TQC) campaigns be strengthened to further improve product quality. As part of the campaigns, QC experts should be invited for seminars. It is necessary for each firm to hold workshop seminars.

Furthermore, in order to improve the level of quality throughout the industry, various industrial standards related to rubber footwear should be prepared. Government-industry joint efforts should be reinforced to increase the number of SIRIM-registered firms.

Since RRIM seems to be the most appropriate organisation for inspection procedures, it is necessary to increase the number of its staff and inspection facilities. Simultaneously, the consolidation of SIRIM's function concerning approval procedures is also required.

(3) Expansion of R&D Activities

In view of difficulties in terms of financing and manpower, which small and medium scale firms often face in R&D activities, it is necessary to establish a system under which government agencies such as RRIM and SIRIM can take the burden off of small and medium scale firms by launching their R&D projects and transferring results, especially in the area of applied technologies, to help small and medium scale firms develop new products. Support from these government agencies is recommended, for example, in the area of development of higher value added soles, moulds and lasts.

It is desirable, for RRIM in particular, to make efforts to foster staff and introduce new equipment because it is not well equipped when it comes to R&D activities for the commercialisation of new rubber footwear products.

(4) Expansion of Soft-term Financing Scheme for Small and Medium Scale Industries

The small and medium scale industries suffer from operating fund and also modernisation fund. The Japanese small and medium scale industries so much benefited from the special low interest financial scheme. These financial scheme and enlarged credit guarantee scheme be expected.

(5) Expansion of Export Promotion Activities

Because of the lack of information related to consumption trends, new products and technologies in overseas markets, it is necessary to set up a well-organized system with close cooperation between government and industry to enable efficient information gathering. At the same time, it is recommended that trade missions be sent overseas to promote public relations activities for Malaysian products and to attend special exhibitions.

Further, it is also desirable that procedures for export duty exemption and draw back of import duty be simplified in response to the strong demand from the industry.

(6) Promotion of Tie-Ups With Foreign Companies

There are an increasing number of foreign companies which are planning to locate their production facilities overseas. In the case of Malaysia, in view of its small domestic market, it is ideal to attract only export-oriented foreign firms which will export 100 percent of their products. It seems that it will become necessary to integrate information

into MIDA to ensure an efficient supply of information on the investment environment in Malaysia.

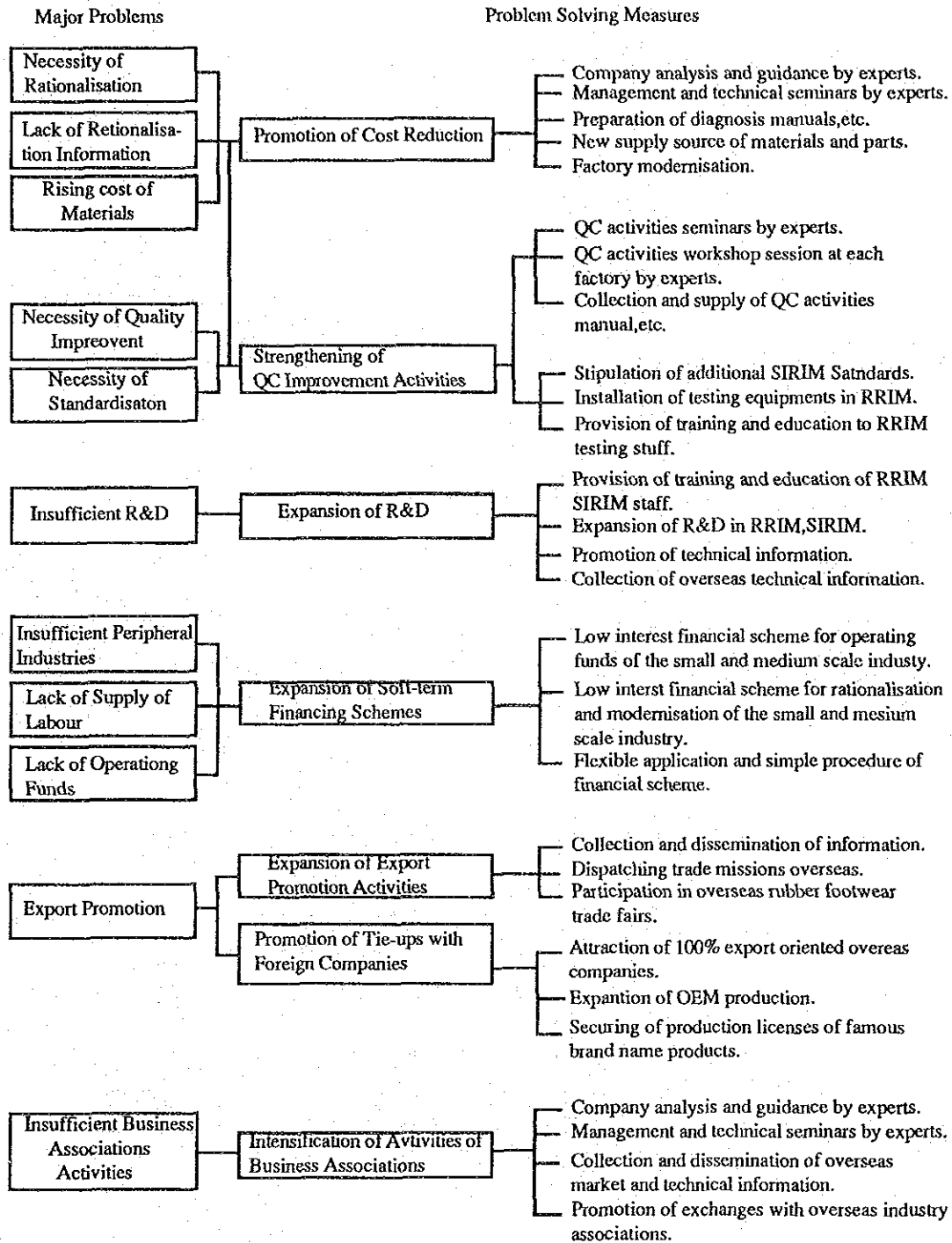
In addition, efforts should be made to expand exports by using existing OEM production.

The acquisition of production licenses for famous brand products is one of the most effective ways to expand exports because non-brand-name products will fall into severe competition in overseas markets, even if they are higher value added products.

(7) Intensification of the Activities of the Rubber Industry Association

Voluntary attempts by industry on its own initiative are the most effective ways to realise an upgrading of the industry's level and expand exports. The intensification of the industry associations' activities is recommended to realise cost reduction, quality improvement and the development of new higher value added products in tie-up with government agencies. It is also recommended for the promotion of exports through exchanges with foreign counterparts and collection of data on new products and technologies in foreign countries.

Fig.VII. 6-2 Measures to Achieve the Goal of the Development Scenario for the Rubber Footwear Industry



VIII. Recommendations

VIII. Recommendations

VIII-1. Comprehensive Promotion Programmes Proposed for Each Selected Industry

VIII-1-1. Comprehensive Promotion Programmes for the Office Electronic Equipment Industry

(1) Basic Strategy

As a result of the evaluation of the present status of the electronics industry in Malaysia and the international market, it was concluded that priority should be given to the promotion of foreign investment. Also, the result of the feasibility analysis of starting the production of office electronic equipment operation showed that there is a possibility of the start of domestic production. Accordingly, for the first stage of industry development, investment promotion will be the main part of urgent measures to be taken for the promotion of the office electronic industry.

According to the results of the survey, basic strategies to be taken in Malaysia for the promotion of the office electronic industry are proposed as follows.

Basic Strategies for Promotion of the Office Electronic Equipment Industry

1. Investment promotional activities toward foreign office electronic equipment manufacturers should be placed at the core of strategies for the promotion of industry in Malaysia. By inviting foreign manufacturers, such problems as the existing technological gap with overseas countries and the difficulty in the access to the world market would be solved and the foundation for the future development of the office electronic equipment industry would be established.
2. Direct investment promotional activities should firstly be intensified. Besides keeping office electronic equipment subject to pioneer status, the reinforcement of investment promotional activities by MIDA and other governmental organisations should be carried out.
3. Measures to increase the attractiveness of Malaysia's investment climate toward foreign office electronic equipment manufacturers should be conducted. For the establishment of the foundation of the office electronic equipment industry, such measures as the promotion of the parts and components industries and the development of human resources should be carried out intensively.

(2) Comprehensive Promotion Programme

Based on the problems related to the promotion of the office electronic industry in Malaysia, the following promotion programmes were proposed for promotion of the industry. The process of the identification of the comprehensive promotion programmes is shown in Fig. VIII. 1-1.

Programme 1. Intensification of Investment Invitation Activities

(Objective)

- * To intensify investment promotion activities toward foreign office electronic manufacturers.

(Contents)

- * Preparation of data and materials for investment promotion activities
 - Materials must be prepared for individual office electronic equipment manufacturers. They should not be just general pamphlets for general investors. In preparing materials for investment promotion, it is necessary to consider such actual circumstances as the present situation of domestic and overseas production activities of office electronic equipment manufacturers, and their needs for parts and components. Also, it would be beneficial to use the results of the feasibility study carried out under this survey.
 - Directories of parts and components manufacturers for office electronic equipment manufacturers must be prepared and the copies must also be made available at every country's MIDA offices.
- * To invite foreign investment missions
 - Foreign investment missions would be invited in order to deepen the understanding among foreign investors of the Malaysian investment environment.
- * Dispatch of Investment Promotion Missions Abroad
 - Investment promotion missions should be dispatched toward major office electronic equipment manufacturers in Japan, the U.S., and Europe.

As well as the promotion of investment by office electronic equipment manufacturers, for parts and components which cannot be produced by existing local parts and components manufacturers, it is necessary to promote investment and technical tie-ups by foreign parts and components manufacturers.

Programme 2. Strengthening of Policy-making Section for the Promotion of the Parts and Components Industries

(Objective)

- * To reinforce a policy-making section of the government and to promote its activities in the areas of the formulation of a long-range development strategy for the parts and components industries and the coordination of policy execution organisations.

(Contents)

- * The following functions would be expanded at a policy-making section of the government.
 - It would formulate a vision for the development of the parts and components industries related to the electronics industry. It would also be necessary to give priority to the promotional measures taken for the development of the parts and components industries, according to the development needs required for the development of the office electronic equipment industry, and the overall development of the electronics industry.
 - To coordinate the contents of promotional policies for the development of the parts and components industries including financial supports, subsidies, supports to R&D activities, and personnel development, and to coordinate the activities of policy execution organisations.
 - To promote the establishment of trade associations by type of parts and components and to encourage their activities for the development of the industry.

Programme 3. Financial Support for the Introduction of Modern Production Equipment by Parts and Components Manufacturers

(Objective)

- * It is of importance to introduce up-to-date production machines required for the manufacture of high precision parts production in order to increase the supply of parts by existing manufacturers to the office electronic equipment industry. A financial support system would be established for this purpose.

(Contents)

- * Low interest loans through the introduction of a financial support system for plan modernisation
- * Expanded use of the CGC system
- * Tax incentives such as a special depreciation system and tax deductions

- * Exemption of import tax for imports of up-to-date machines

Programme 4. Strengthening of Quality Control Activities

(Objective)

- * To cultivate the sense of quality control among small- and medium-scale firms in order to promote the development of the parts and components industries from a long-range viewpoint.

(Contents)

- * To hold seminars and provide advice about quality control in order to cultivate the sense of quality among managers and workers in the parts industry.
- * To dispatch managers of parts and components manufacturers to overseas training tours to see production lines in Japanese plants
- * To expand training programmes of company managers by the NPC (National Productivity Centre) and to encourage the activities for the improvement of productivity.

Programme 5. Development of Engineers and Technicians and Intensification of R&D Activities in the Field of Electronics

(Objective)

- * To expand education programmes for high level personnel to deal with the present circumstance that the number of technicians and engineers in the electronics industry is recently becoming insufficient.
- * To increase engineers trained at firms in Japan, for which the need is high among Japanese firms which start operation in Malaysia.
- * To enlarge R&D activities in the form of a joint project between public personnel training and education organisations and the industrial sector.

(Contents)

- * Tax exemption subject to dispatch of workers for training to a parent company by foreign manufacturers in Malaysia
- * To expand engineer training curriculums at universities
- * Increased availability of scholarships for overseas study at universities and R&D organisations
- * To establish a financial support system for employee training which would give priority to the training of technician-class employees.

- * Promotion of the establishment of manpower training centres by foreign firms or by foreign firms jointly with the government for the purpose of practical training in production technology and educating engineers on electronics technologies
- * Expansion of research institutes related to electronic parts and components technologies, and provision of support to R&D activities of domestic parts and components manufacturers in cooperation with major assemblers which are major users of parts and components.

Programme 6. Accumulation of High Level Technologies in the Field of Electronics

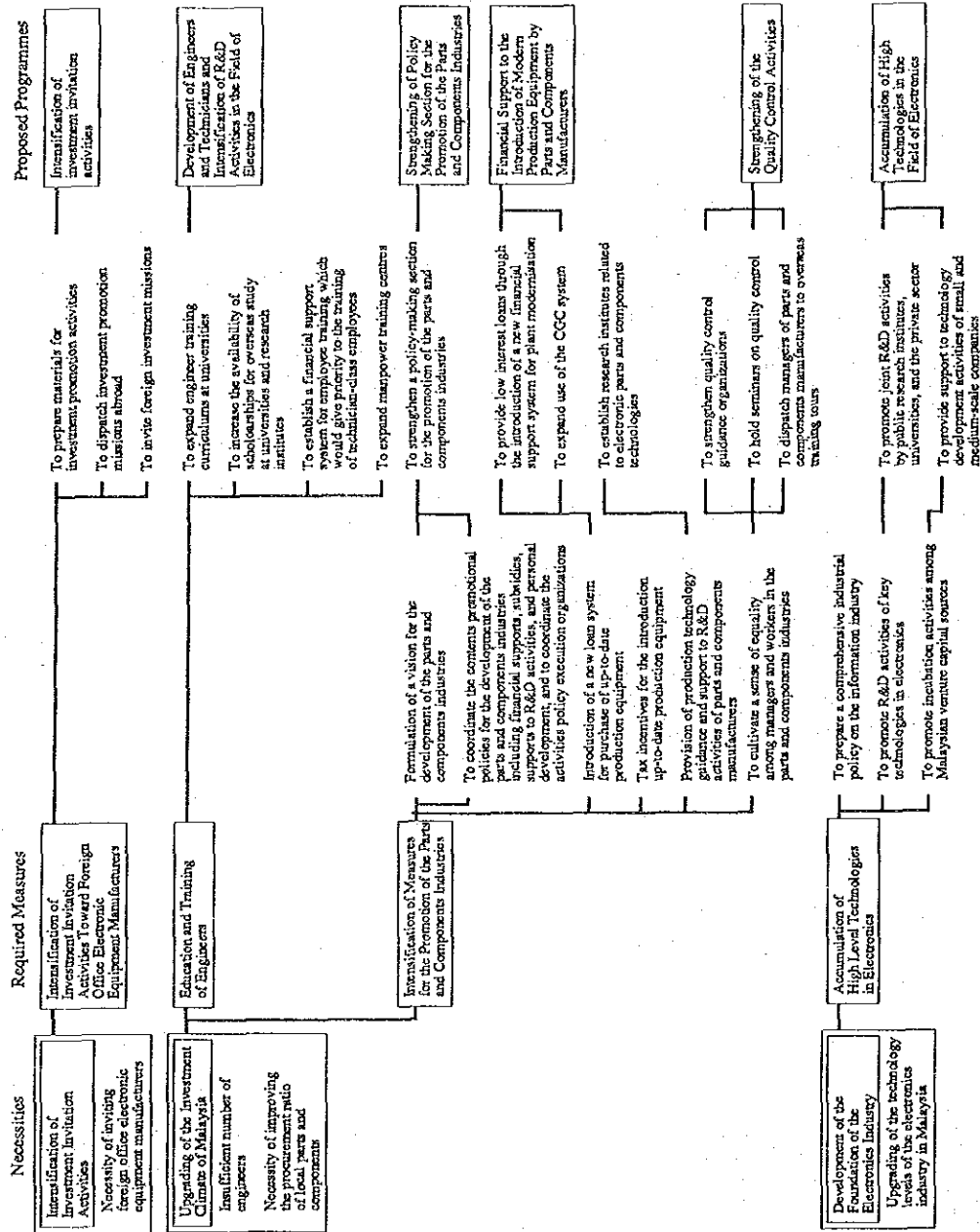
(Objective)

- * To improve the attractiveness of investment in Malaysia toward foreign OA manufacturers including office electronic equipment by the promotion of accumulation of technologies and intensification of R&D capability in high-technology electronics in Malaysia.

(Contents)

- * Promotion of joint R&D activities between public research institutes, the telecommunication firm, universities, and the private sector on key technologies of office electronic equipment and electronics parts and components. (For example, by the introduction of systems such as a key technology development subsidy system.)
- * Establishment of incubation activities among Malaysian venture capital sources. For example, provision of subsidies for technology development to small- and medium-scale companies.

Fig. VIII. 1-1 Process of Formulation of Comprehensive Programmes for Development of the Office Electronic Equipment Industry



VIII-1-2. Comprehensive Promotion Programmes for the CRT Industry in Malaysia

(1) Basic Strategy

The domestic production of colour CRTs, which are the most important components for TV set assembly, is highly desirable in the Malaysian market, due to the rapid increase of domestic colour TV set production. Further, from the political viewpoint, the start of local production of colour CRTs, which occupy approximately 35% of the total material costs of colour TV set assembly, has become one of the top priority issues. The domestic production of CRTs is expected to contribute largely both to the increase of domestic value added ratio of TV set production and to the diversification and stabilisation of the electronics industry in Malaysia.

For the start of domestic production of colour CRTs, however, a very large amount of initial investment is required and it would take a long time to recover this investment cost. Further, a very high level of technology has to be transferred from overseas manufacturers in a short period for the start of local production.

From the above, a basic strategy for the promotion of the CRT industry in Malaysia is proposed as follows.

Basic Strategy for the Promotion of the CRT Industry

1. Firstly, the investment invitation activities directed for the T.V. set assemblers having plants in Malaysia and other international CRT manufacturers should be strengthened.
2. In order to make the investment promotion activity effective, the bottleneck areas of CRT production should be eliminated, the creation of a sufficient number of engineers and skilled manpower should be achieved through the expansion of educational and training facilities and such infrastructure as waste water discharge systems or sludge disposal systems should be developed.
3. The key issue for the investment decision is the financial viability of local CRT manufacturing. Because the improvement of profitability should be achieved by the investors' own efforts, the invitation of investors having enough technical capability and CRT production experience is essential. Politically, it could be supported by such indirect measures as the development of local parts suppliers or the supply of stable funds.

(2) Comprehensive Promotion Programmes

In section V-5-2. of this report, the various kinds of measures to be taken in order to achieve the goal of the development scenario of the CRT industry in Malaysia were examined. By compiling these measures the following development programmes are proposed. The process of the compilation of the programmes is shown in Fig. VIII. 1-2.

Programme 1. Intensification of Investment Invitation Activities

(Objective)

- * To activate the investment promotion activities toward overseas CRT manufacturers

(Contents)

- * Compilation of investment information
 - Collect and supply detailed information specifically targeted to the CRT industry as well as general information on the investment climate of Malaysia
- * Dispatch of invitation mission teams
 - Dispatch investment invitation mission teams to overseas companies having CRT production know-how. They are located in Japan, Korea, Taiwan or the U.S., and their number is very limited.
- * Establishment of better accommodation facilities for the study mission teams from overseas manufacturers
 - Strengthen the accommodation facility of the mission team so that it could supply all of the necessary information for investment decision.
- * Promotion of the invitation of overseas parts manufacturers
 - Together with the invitation of CRT manufacturers, that of parts manufacturers such as glass panel and funnel manufacturers should be promoted.
- * Promotion of capital and technical tie-ups
 - The matching services for capital or technical tie-ups between local and overseas manufacturers should be promoted

Programme 2. Strengthening of Policy-making Section for the Promotion of Parts and Components Industries

(Objective)

- * Improve the profitability of CRT production by the support for the increase of locally procurable parts

(Contents)

- * Establishment of a long-term strategy for the development of domestic parts suppliers for the colour CRT industry
- * Implementation of such promotion measures as financial support, R&D support or personal training schemes for parts suppliers and coordination of all of the activities of organisations related to the development of electronics parts suppliers
- * Compile a list of local parts supply companies and establish an information supply system related to local procurement of parts

Programme 3. Development of Engineers and Technicians and Intensification of R&D Activities in the Field of Electronics

(Objective)

- * To improve the financial viability of investments through the support for the activities to upgrade product quality and productivity, and to eliminate one of the bottleneck areas for production through the increased supply of necessary manpower.

(Contents)

- * Expansion of engineering and electro-mechanics education in universities
- * Establishment or expansion of training centres related to the electronics industry which could train (1) engineers and technicians, (2) foremen, (3) skilled workers, (4) general workers and (5) managers
- * Establishment or expansion of supporting systems for overseas training of employees through taxes or subsidies
- * Promotion of joint R&D activities between universities and private companies

Programme 4. Strengthening of Quality Control Activities

(Objective)

- * To upgrade the technical level of local parts suppliers in order both to support the improvement of the product quality of locally manufactured CRTs, and to raise the rate of local procurement of parts

(Contents)

- * Support for the establishment of quality control systems in each factory
 - To give basic training for quality control activities which would be conducted in CRT factories
- * Support for the R & D activities of local parts suppliers

- In order to develop those parts suppliers which could supply necessary parts for CRT factories, support is given for their QC activities.

Programme 5. Alleviation of the Problem of Industrial Wastes

(Objective)

- * To eliminate the bottleneck area for starting domestic production of CRTs through the improvement of infrastructure for industrial waste

(Contents)

- * Improve the infrastructure related to industrial waste water discharge or to sludge disposal in collaboration with developers of industrial sites
- * Set national and regional criteria for industrial waste

Programme 6. Expansion of Soft-term Financing Scheme for Small- and Medium-scale Industries

(Objective)

- * To strengthen the local parts supply capability to the CRT industry through financial support for parts suppliers

(Contents)

- * Establish or expand the institutional financing scheme which would supply soft-term financing to subcontracting small- and medium-scale industries
- * Expand the credit guarantee scheme with the aim of assisting small- and medium-scale industries which have inadequate collateral to have ready access to bank credit

Programme 7. Establishment of a Financial Support System for the Development of Key Industries

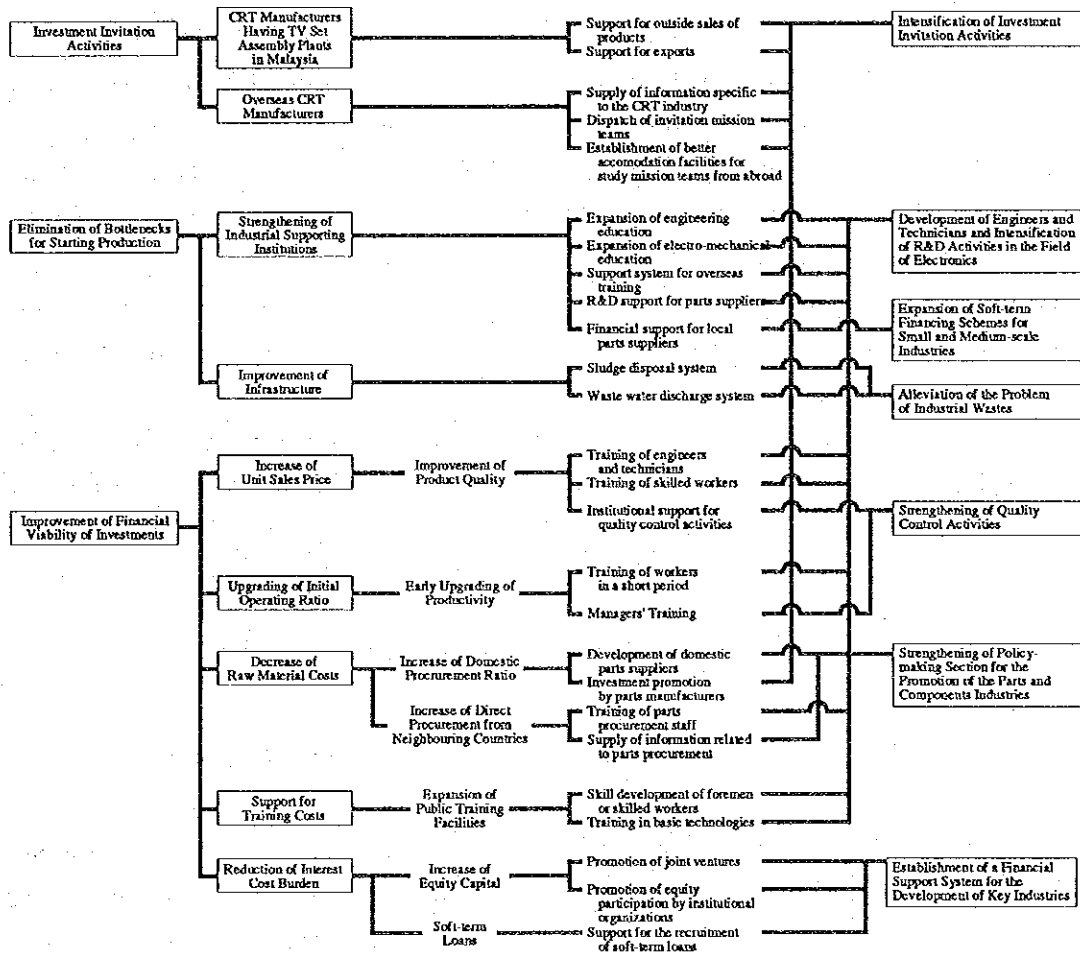
(Objective)

- * To give financial support for the development of such big projects as might be politically required.

(Contents)

- * Establish a new financing scheme to supply long-term credit for the development of key industries

Fig. VIII. 1-2 Process of Formulation of Comprehensive Programmes for Development of CRT Industry



VIII-1-3. Comprehensive Promotion Programmes for Ceramic IC Package/Substrate Industry

(1) Basic Strategy

Malaysia is a big market of ceramic IC packages following only Japan and the U.S. The semiconductor industry is a central industry in Malaysia which occupies 78.5% of total sales value of the Malaysian electronics and electrical industry. Because the existence of nearby suppliers of important product parts such as ceramic IC packages would lead to the strengthening of their product competitiveness through cost reduction and quicker service, etc., domestic production of ceramic IC packages is strongly desired by the semiconductor manufacturers in Malaysia. The local supply of ceramic IC packages would also contribute to the further expansion of the semiconductor industry in Malaysia. Because the development of both the semiconductor industry and the parts suppliers for the semiconductor industry is one of the targets in the governmental industrial development programme, fostering parts suppliers such as ceramic IC package manufacturers would be most expected.

Meanwhile, the ceramic IC package industry is said to be a peculiar industry because a fairly high level of production know-how and technology are required for production and at present only a few manufacturers control the world market.

Thus, the basic strategy to be taken in Malaysia for promotion of the industry is proposed as follows.

Basic Strategy for Promotion of Ceramic IC Packages/Substrates

1. For the start of domestic production, it is necessary to invite the investment of foreign companies who already have the know-how and technology. In order to realise such investment, investment invitation activities and improvement of the investment environment would have to be conducted.
2. As to the investment environment, improvement of worker quality is significantly necessary since the production of ceramic IC packages/substrates requires skilled workers and engineers. For expansion of the market, continuous development of the semiconductor industry is necessary. Worker quality would be improved through public institutional activities to increase the supply of skilled workers and engineers. As to investment environment, the solution of such problems as the disposal of industry waste and the constant supply of electricity should be executed.

3. After the start of production, a long period of training of employees would be required. Support for that training should be provided. Encouragement of domestic product use as a support for product sales activities would be made. Other support systems for product quality improvement or activation of new product development would be arranged.

(2) Comprehensive Promotion Programme

In the preceding paragraph (VI-5-2.), effective measures for the promotion of the ceramic IC package/substrate industry in Malaysia are examined. Based on the measures, the following comprehensive promotion programmes for the industry are proposed. The process of the inducement of promotion programmes is summarised and shown in Fig. VIII. 1-3.

Programme 1. Intensification of Investment Invitation Activities

(Objective)

- * To invite the investment of foreign manufacturers who have the necessary technology and know-how for the production of ceramic IC packages/substrates.

(Contents)

- * Dispatching of investment invitation missions.
 - Missions are to be dispatched to overseas ceramic IC package/substrate manufacturers in order to invite them to invest in Malaysia.
- * Provision of information related to investment invitation.
 - Other than general information, specific information effective to induce ceramic IC package/substrate manufacturers to invest in Malaysia should be collected and provided.

Programme 2. Development of Engineers and Technicians and Intensification of R&D Activities in the Field of Electronics

(Objective)

- * To increase the advantageous points in the investment environment through increased supply of qualified workers, and make it easy to gain know-how and improve product quality after the start of production. Further, to foster skilled workers and engineers capable of conducting design and new product development.

(Contents)

- * Expansion of university education in chemistry and electronics.
- * Expansion of circuit designing courses in universities and other public organizations.
- * Expansion of courses of general knowledge and technology related to electronics as well as quality control in vocational training centres. Start of night courses would also be recommended.
- * Establishment of electronics related technology centres to train skilled workers to obtain highly demanded special technology.
- * Dispatching overseas of engineers, and expansion of overseas study systems.
- * Widening the present incentive qualifications for employee training.
- * Strengthening of joint R&D activities between public academic institutions and private companies.

Programme 3. Establishment of a Fund to Support the Training and R&D Activities of Industries

(Objective)

- * To reduce the burden of expenditure for employee training by private companies. Further, to activate new product development in Malaysia.

(Contents)

- * Reduce the burden for private companies through providing subsidies for employee training, pool the fund which is freely used by vocational training centres and technology centres, etc., for their contribution to the improvement of worker quality.
- * New products development and product quality improvement activities would also be supported by the fund.

Programme 4. Strengthening of Policy-making Section for the Promotion of Parts and Components Industries

(Objective)

- * To encourage domestic parts production.

(Contents)

- * In order to promote the development of the domestic products parts industry, institutional incentives such as ITA and export incentives would be reviewed and newly proposed. For Example, sales of product parts to industries in FTZ

and LMW should be considered as export activities to which ITA or export incentives could be applied.

- * By reviewing the actual status of the parts industry in Malaysia and identifying parts items to be domestically produced in the future, targets and policies for parts industry development are to be established.
- * To encourage the use of domestic product parts through campaigns and expansion of related incentives.
- * To provide useful information on parts procurement in Malaysia to both users and suppliers.

Programme 5. Alleviation of the Problem of Industrial Wastes

(Objective)

- * To give a solution for such important problems for the semiconductor industry as disposal of industrial waste. Improvement of infrastructure for investment environment through standardisation of criteria of industrial waste disposal is to be achieved.

(Contents)

- * To solve the problem of industrial waste such as sludge by an adequate disposal method.
- * To review the existing criteria and the standardise adequate criteria. Resistration and administration of waste disposal firms to provide useful information for the users would be conducted.
- * To construct industrial estates for high-technology industry which are fully equipped with disposal systems for industrial waste.

Programme 6. Establishment of a System to Secure a Stable Supply of Electricity

(Objective)

- * To establish a system for the constant supply of electricity which is important for the start of production of ceramic IC packages/substrates as well as for the semiconductor industry.

(Contents)

- * Review of prohibitive regulations as to capacity of in-house power plants.
- * Improvement of infrastructure in regions where semiconductor manufacturers are concentrated.

Programme 7. Strengthening of Quality Control Activities

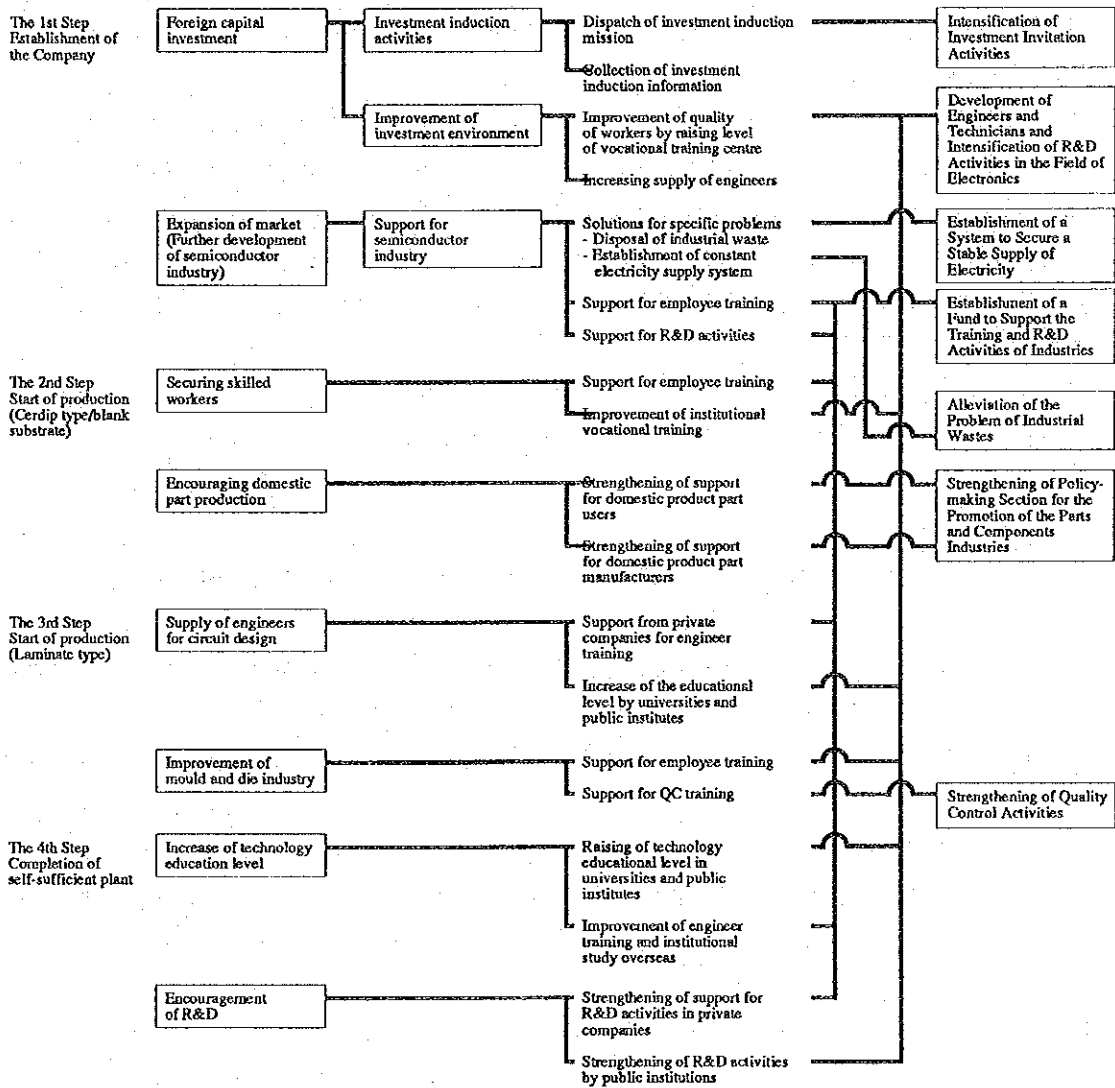
(Objective)

- * To strengthen the international competitiveness of the products both in price and quality, by upgrading the quality control capability of subcontractors such as mould manufacturers.

(Contents)

- * QC seminars and workshop sessions at each factory site are to be held with the aim of increasing the quality consciousness at each level of the production line from managers to operators.
- * Expand the nation-wide activities for productivity improvement led by NPC.

Fig. VIII. 1-3 Process of Formulation of Comprehensive Programmes for Development of Ceramic IC Packages/Substrates



VIII-1-4. Comprehensive Promotion Programme for the Rubber Footwear Industry

(1) Basic Strategy

The Malaysian rubber footwear industry is designated as one of the priority industries because the industry is a resource-based industry that utilises natural rubber (NR) - an important primary product of Malaysia. And the industry is given various incentives and is expected to develop further.

But, as the Malaysian purchasing power is limited with small population, the future direction is that the production is to be expanded targetting at export markets. In the overseas markets, Korean and Taiwanese products are still competitive and Chinese, Thai and Indonesian products are getting power. Accordingly, the public and private joint efforts to make the Malaysian products more competitive must be continued by both the industry and the Government.

In light of the above, following are the basic concepts of a comprehensive promotion programme to foster the rubber footwear industry in the future.

Basic Strategy for the Promotion of the Rubber Footwear Industry

1. Adoption of any possible measures to reduce production costs and improve product quality to increase competitiveness in the world market.
2. Promotion of product standardisation and development of high-value added products to raise the reputation of Malaysian products in overseas markets.
3. Strengthening of overseas marketing activities and promotion of tie-ups with foreign manufacturers producing internationally well-known brand-name products.

(2) Comprehensive Promotion Programmes

The details of the present major problems of the industry and the problem solving measures were shown in section VII-6. Based on these analyses, the comprehensive promotion programmes for the rubber footwear industry were proposed. The process of inducement of the programmes is shown in Fig. VIII. 1-4.

Programme 1. Company Diagnoses and Guidance by Experts

(Objective)

- * To provide the company diagnoses and guidances by experts at each manufacturer's factory site. The instruction of measures for the elimination of wastes in every production process as well as good maintainence and correct handling of machinery and equipment is the major target.
- The diagnoses and guidance will also be provided in the areas of company management such as inventory control or financial management.

(Contents)

- * Company analyses and guidance by experts at each factory site.
- * Management and technical seminars by experts.
- * Preparation of operation and management manuals, etc.

Programme 2. Strengthening of Quality Control Activities

(Objective)

- * To make everyone completely conscious of the meaning of quality control at each level of the production line from managers to operators.
- * Under the joint sponsorship among NPC, RRIM and the Industry Association, QC seminars and workshop sessions at each factory site are to be held.

(Contents)

- * QC activities seminars by experts.
- * QC activities workshop sessions at each factory by experts.
- * Collection and supply of QC manuals, etc.

Programme 3. Promotion of Rubber Footwear Product Standardisation

(Objective)

- * The additional SIRIM standards of the rubber footwears should be stipulated and as many rubber footwear firms be registered under the scheme for the Assessment and Quality Registration Systems (AQRS) in order to level up the industry in whole.
- For performing the testing by SIRIM standards, the additional testing equipment should be installed in RRIM.

(Contents)

- * Stipulation of additional SIRIM standards.
- * Installation of testing equipments in RRIM.
- * Provision of training and education to RRIM testing staff.

Programme 4. Expansion of R&D and Technology Extension Activities in RRIM or SIRIM

(Objective)

- * Because the small and medium scale industries are not capable of R&D and also the supporting capability in the R&D for the rubber products are not sufficient in RRIM at present, the training and education of RRIM staff should be implemented by overseas experts.
- * In addition, the R&D in the area of quality improvement and productivity improvement of making moulds and lasts should be made by SIRIM.

(Contents)

- * Provision of training and education of the RRIM and SIRIM staff in charge of R&D of rubber footwear.
- * Expansion of the R&D activities in RRIM and SIRIM, and the promotion of technical transfer.
- * Collection of overseas technical information.

Programme 5. Expansion of Soft-term Financing Schemes

(Objective)

- * To introduce the low interest financial scheme in order to provide funds for the rationalisation and modernisation of machinery and equipment in the small and medium scale industries. The flexible application and the simple procedure for the scheme be expected.

(Contents)

- * Low interest financial scheme for the rationalisation and modernisation of the facilities of its small and medium scale industry.
- * Flexible application and simple procedure of financial scheme.
- * Expansion of credit guarantee schemes.

Programme 6. Expansion of MEXPO Activities

(Objective)

- * To strengthen the marketing capability of rubber footwear manufacturers in the international market.

(Contents)

- * The funds and staff of MEXPO be increased and its activities be strengthened in those areas as to collect such information as overseas market trends, new

products, new technology and other related information, disseminate them to the private sector, to send the trade missions to overseas markets and to attend to rubber footwear trade fairs.

- Collection and dissemination of information.
- Dispatching trade missions oversea.
- Participation in overseas rubber footwear trade fairs.

Programme 7. Promotion of Tie-ups between Local and Overseas Companies

(Objective)

- * Because many overseas rubber footwear manufacturers are trying to shift their production bases from their countries, try to attract their investments to Malaysia.

Further, try to secure the production licenses of world famous brand products as well as to expand the present OEM production.

(Contents)

- * Attraction of 100% export oriented overseas companies.
- * Expansion of OEM production.
- * Securement of production licenses of famous brand products.

Programme 8. Intensification of the Activities of the Rubber Footwear Industry Association

(Objective)

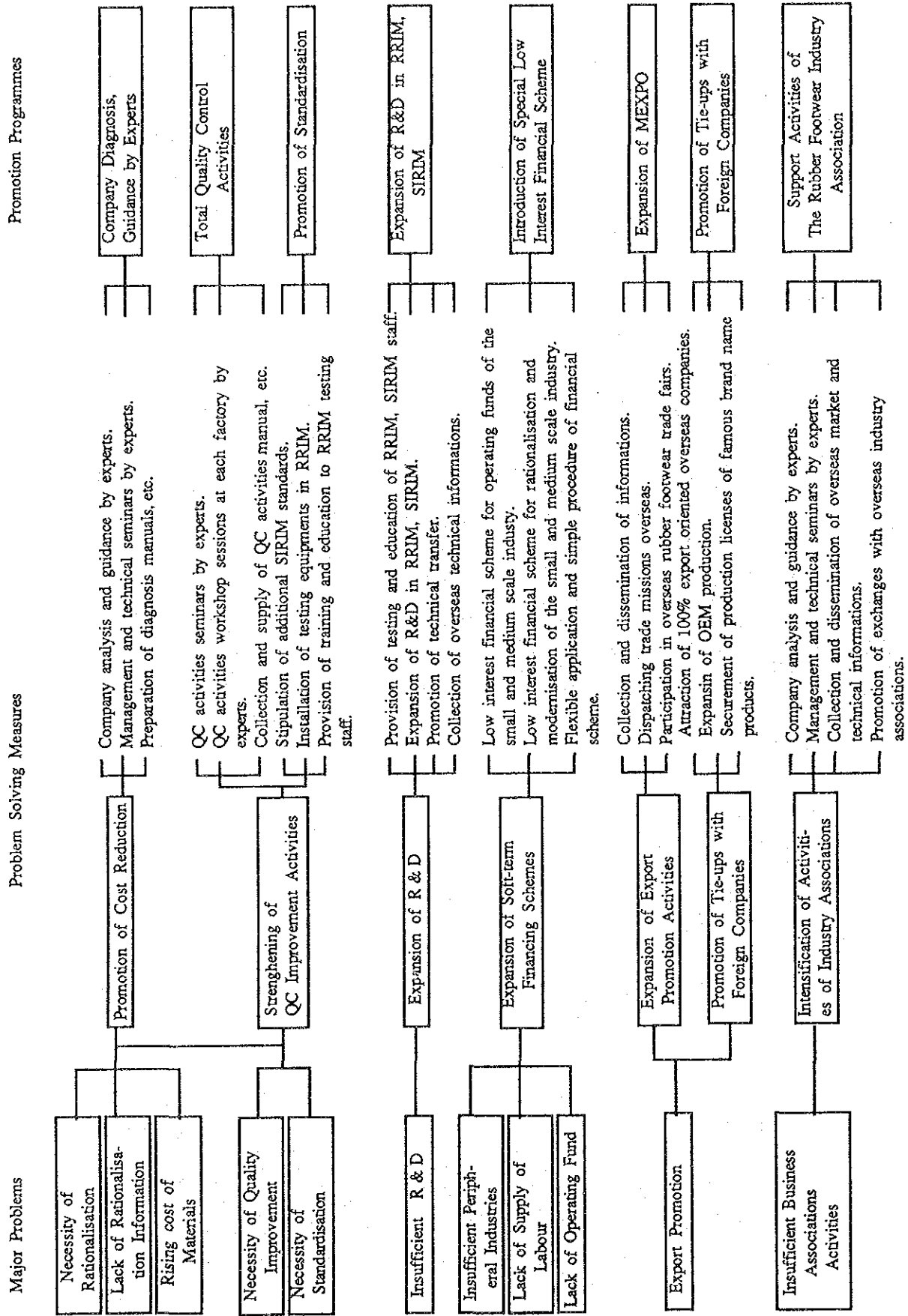
- * The rubber footwear industry association is just one of sub-committees of the rubber products industry association and its activities are not active.

Accordingly try to establish a system to revitalise its activities in such areas as information collection and productivity improvement with the aim to raise the management and technical levels of the whole industry in cooperation of RRIM, NPC and MEXPO.

(Contents)

- * Under the sponsorship and initiative of the industry association, the following activities should be implemented:
 - Company analyses and guidances by experts.
 - Management and technical seminars by experts.
 - Collection and dissemination of overseas market and technical informations.
 - Promotion of information exchanges with overseas industry associations.

Fig. VIII. 1-4 Process of Formulation of Comprehensive Programmes for Development of the Rubber Footwear Industry



VIII-2. Integration and Prioritisation of Proposed Programmes

VIII-2-1. Integration of Programmes

A package of programmes for each of the four industries covered by the present survey have been proposed separately in section VIII-1 with the aim of the development of Malaysia's export industries. However, there are a number of instances of overlapping among the proposed programmes for each of the individual industries. This is especially so in the case of the three electronics-related industries, the office electronic equipment, cathode-ray tube (CRT), and ceramic IC packages/substrates industries.

Consequently, the programmes for the three electronics-related industries have been integrated. In addition to this, relatively similar programmes relating both to the electronics industry and to the rubber footwear industry have also been combined. The present status of activities in Malaysia in the areas covered was also examined in compiling the 12 integrated programmes listed below.

(Programmes relating to both the electronics and rubber footwear industry)

Programme 1. Intensification of Investment Invitation Activities (Expansion of MIDA Activities)

Programme 2. Credit and Credit Guarantee Strengthening Programme for Small- and Medium-scale Industries

Programme 3. Strengthening of Quality Control Activities

(Electronics Industry)

Programme 4. Development Programme for Small- and Medium-scale Manufacturing Enterprises

Programme 5. Human Resources Development and R&D Expansion in the Field of Electronics

Programme 6. Alleviation of the Problem of Industrial Wastes (F/S for the Construction of Industrial Estates for High-technology industries)

Programme 7. Establishment of a Financial Support System for the Development of Key Industries

Programme 8. Establishment of a System to Secure a Stable Supply of Electricity

(Rubber Footwear Industry)

Programme 9. Company Diagnoses and Guidance by Experts

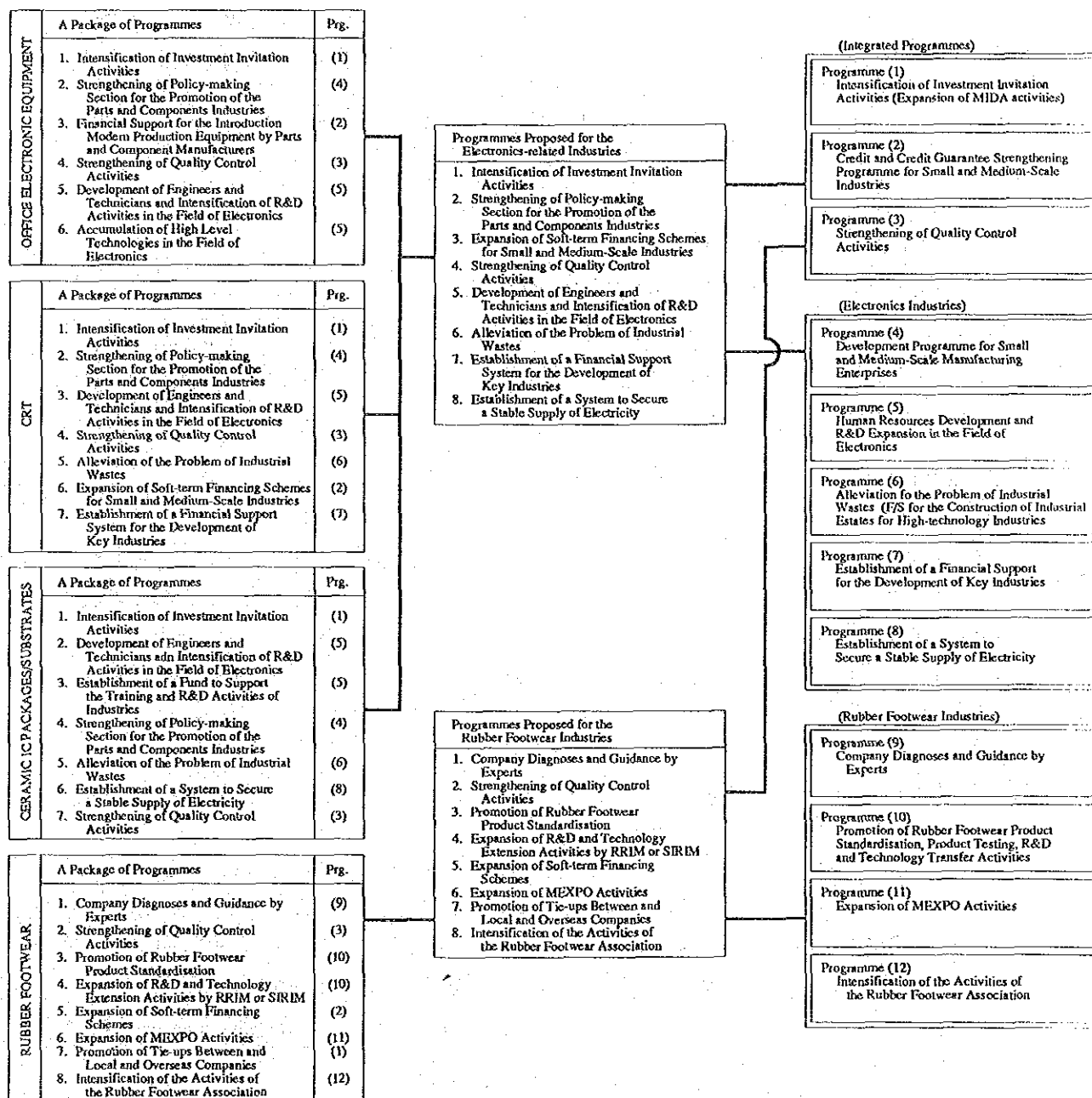
Programme 10. Promotion of Rubber Footwear Product Standardisation, Product Testing, R&D and Technology Transfer Activities

Programme 11. Expansion of MEXPO Activities

**Programme 12. Intensification of the Activities of the Rubber Footwear Industry
Association**

The process used for integrating the above comprehensive programmes is as shown in Fig. VIII. 2-1 below.

Fig. VIII. 2-1 Process for the Integration of Programmes and Integrated Projects



VIII-2-2. Outline of Integrated Projects

An outline of the projects which have been integrated is provided below. The recommended execution measures and implementation schedules of these projects are summarized and shown in Table VII.2-1.

Programme 1.

[Objectives]

- * Promotion of investment in Malaysia by foreign manufacturers
- * Promotion of technical tie-ups between foreign and Malaysian manufacturers

Intensification of Investment Invitation Activities (Expansion of MIDA Activities)

[Contents]

- * Information service for the invitation of investment
 - gathering of detailed information necessary for investment decisions by specific industries, and compiling this information into a guidebook to be distributed to potential investors;
 - preparation of a directory of domestic parts manufacturers, samples of parts are to be made available at MIDA's overseas offices.
- * Dispatch of missions for the invitation of investment
 - the dispatch of missions for the invitation of investment from specific specialized industries in specific countries.
- * Strengthening of the accommodation facilities for receiving investment missions
 - strengthening of this facilities so that missions dispatched by companies examining the prospect of investment are able to promptly obtain the information they require
 - the positioning of experts in MIDA who are able to provide information based on expert knowledge relating to specific industries in the languages of the priority countries concerned.
- * Provision of a service to match partners for capital and technical tie-ups
 - the introduction of partners to overseas manufacturers wishing to set up a joint venture
 - in the case of rubber footwear in particular, the promotion of technical tie-ups between domestic companies and overseas companies whose products are well-known brands in overseas markets

Programme 2.

[Objectives]

- * Expansion of the credit guarantee system in order to promote the financing of small- and medium-scale industries which have low credit ratings
- * Expansion of the fund pertaining to soft-term credit aimed at small- and medium-sized companies
- * Provision of assistance to small- and medium-sized companies in the areas of management and technology

Credit and Credit Guarantee Strengthening Programme for Small- and Medium-scale Industries

[Contents]

- * Accumulation of financial resources within the CGC with the assistance of International financial institutions and the Central Bank of Malaysia. These resources are to be loaned to small- and medium-sized companies through commercial banks
- * The CGC is to provide guarantees for all of the above-mentioned loans
- * A Consulting Service section is to be established within the CGC to provide assistance in the areas of management and technology to companies which receive finance

Programme 3.

[Objectives]

- * Raising quality consciousness among small- and medium-sized companies as part of the development policy of the parts industry
- * Raising the quality levels and productivity of export products' production by stepping up QC activities within the factories of export-oriented enterprises

Strengthening of Quality Control Activities

[Contents]

- * In addition to holding seminars on QC activities sponsored by the NPC and industry associations to which QC experts are invited, workshops are to be held in individual companies
 - the holding of seminars on QC activities to which QC experts are invited;
 - the holding of workshops in individual companies by invited experts.

- * The compilation of a manual on QC activities to be distributed among companies throughout the country

Programme 4.

[Objectives]

- * With a view to developing the domestic parts industry, offering direct guidance at factories in the areas of production technology for individual small and medium-sized companies.
- * Formulation of comprehensive policies to foster small and medium-sized companies with the major focus on the development of supporting industries and coordination of activities of various related agencies to realize these policies.

Development Programme for Small- and Medium-scale Manufacturing Enterprises

[Contents]

- * Direct guidance at factories to local small and medium-sized companies for raising production technology level with the cooperation of foreign experts and local technology related agencies such as the MTT's Medium and Small Enterprise Unit or SIRIM.
- * Direct guidance at factories in management and marketing to local small and medium-sized companies with the cooperation of foreign experts and related local organizations such as MTT's, the Medium and Small Enterprise Unit, NPC, or MEXPO

Programme 5.

[Objectives]

- * Fostering of engineers and technicians required by the electronics industry
- * Expansion of training facilities for unskilled and skilled workers required by the electronics industry
- * Promotion of R & D activities through industry-university cooperation
- * Establishment of a Policy and Coordination Section within MTT's Small and Medium Enterprise Unit and the formulation of a comprehensive policy and the coordination of all the above-mentioned activities for fostering medium and small companies

**Human Resources Development and R&D Expansion
in the Field of Electronics**

[Contents]

- * Increased activities to support private R & D activities through industry-university cooperation and the expansion of electronics-related education at universities
 - promotion of the Design Laboratory for Information Technology scheme being planned by the University of Science of Malaysia, with the aim of fostering engineers, and giving assistance in the manufacture of hardware and software to local electronics companies;
 - promotion of the Engineering Application Center scheme being planned by the Malaysian National University (UKM), and expanded services for the support of private R & D and applied technology education.
- * Expansion and reinforcement of vocational training facilities
 - fostering of skilled workers which meet the needs of the industry through the improvement of the curriculum for electronics courses run by the MARA Vocational Training Institute and through the introduction of new machinery;
 - expansion of the courses of Electro Mechanical Technology newly established in the Polytechnic's Ipoh and Alor Setar schools and the training of medium grade technicians in line with the needs of the industry;
 - promotion of industry-university sponsored training programmes by the Skill Development Centre presently being planned jointly by companies in Penang, the USM, and the Penang Development Corporation
- * Examination of the possibility of establishing a programme to assist companies with the training of their employees with reference to Singapore's Skills Development Fund (SDF)

Programme 6.

[Objectives]

- * Establishment of standards relating to the treatment of industrial waste, and the provision of an infrastructure for this

**Alleviation of the Problem of Industrial Wastes
(F/S for the Construction of Industrial Estates for High-technology Industries)**

[Contents]

- * Carrying out of a feasibility study on the construction of industrial estates, exclusively used by hi-tech industries, which contain facilities for the treatment of industrial waste
- * Provision of an infrastructure for drainage and the treatment of sludge from existing factories in cooperation with agencies involved in the construction of industrial estates
- * Setting of national and local standards in relation to industrial waste

[Criteria for the selection of sites for high-tech industrial parks]

- * For the selection of sites for high-tech industrial parks, it is necessary to make multifaceted investigations through feasibility studies on laws and regulations of each area, pertaining to industrial wastes, physical aspects in terms of drainage, the natural surroundings which must be preserved for the sake of the environment, and other characteristics of the proposed sites.
- * For reference, conditions for the selection of areas under the "High Technology Industry Accumulation Area Development and Promotion Ordinance" enacted by Japan for the designation of "technopolis" in the past are shown in ANNEX-10.

Programme 7.

[Objectives]

- * Financial assistance for large-scale investment projects, the development of which is politically desired

**Establishment of a Financial Support System
for the Development of Key Industries**

[Contents]

- * Establishment of an investment/finance system through political means for the introduction of various kinds of long-term funds required for fostering key industries using as a guide the Japanese financial system for the promotion of technology (Japan Development Bank) and South Korea's National Investment Fund and its funds for raising industrial technology levels
- * Examination of the possibility of establishing a tax system and other incentive measures in order to promote investment in key industries by institutional investors

Programme 8.

[Objective]

- * Establishment of a system for the stable supply of electric power required for the operation of plants by hi-tech companies

Establishment of a System to Secure a Stable Supply of Electricity

[Contents]

- * Improvements in the electric power infrastructure in order to provide a stable supply of electric power to IC and other hi-tech manufacturers
- * Easing of restrictions governing in-house electric power generating facilities for companies which face problems of power stoppages

Programme 9.

[Objectives]

- * Inspection and guidance for improvements by experts with the primary goal of the elimination of production loss at each production stage in rubber footwear factories
- * Guidance for the general management of companies, on topics such as stock management and financial management in addition to production management

Company Diagnoses and Guidance by Experts

[Contents]

- * Inspection of companies and guidance by experts in rubber footwear invited from overseas
- * Holding of seminars on management and technology relating to the rubber footwear industry by experts invited from overseas
- * Compilation of a manual on management and technology aimed at rubber footwear manufacturers

Programme 10.

[Objectives]

- * Improvement of standards for rubber footwear products, and the raising of the degree of reliability in product quality
- * Support of R & D activities related to rubber footwear production technology
- * Expansion of the technology extension service provided to rubber footwear manufacturers

**Promotion of Rubber Footwear Product Standardisation,
Product Testing, R&D and Technology Transfer Activities**

[Contents]

- * Expansion of SIRIM standards for rubber footwear through the cooperation of overseas experts
- * Expansion of inspection facilities within the RRIM for carrying out product inspection
- * Expansion of the R & D function of the RRIM and the SIRIM, and the promotion of technology transfer to private companies

Programme 11.

[Objective]

- * Increased capacity to sell rubber footwear products in overseas markets

Expansion of MEXPO Activities

[Contents]

- * Improve MEXPO's capacity to gather information on marketing
 - systematic collection of information on overseas markets, new products, and technology and other information related to rubber footwear;
 - supply the collected data to domestic companies
- * Increase MEXPO's budget and staff numbers, and strengthen the following activities:
 - dispatch of missions to inspect overseas markets;
 - participation in trade fairs overseas.

Programme 12.

[Objective]

- * Stimulate activities of the rubber footwear industry association, and raise the technical and management levels of the industry as a whole

**Intensification of the Activities
of the Rubber Footwear Industry Association**

[Contents]

* Undertake the following activities focusing on industry groups

- invitation of experts to conduct tours to provide guidance to each manufacturer;
- invitation of experts to hold seminars on management and technology;
- collect data on overseas markets and technology;
- increase the level of exchanges with industry associations overseas, and promote technical cooperation between member companies and overseas companies.

Table VIII. 2-1 Execution Measures and Schedules of the Proposed Programmes

[Common both to Electronics and Rubber Footwear Industries]

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Execution Measures and their Schedule		
			Measures	Execution Schedules	
				Immediately	At an early stage
<p>1. Intensification of Investment Invitations Activities (Expansion of MIDA Activities)</p> <p><Objective></p> <ul style="list-style-type: none"> - Promotion of investment in Malaysia by foreign manufacturers - Promotion of technical tie-ups between foreign and Malaysian manufacturers 	<ol style="list-style-type: none"> 1) Information service for the invitation of investment <ul style="list-style-type: none"> - Compilation of guidebook by industry - Preparation of a directory of domestic parts suppliers 2) Dispatch of investment invitation missions 3) Strengthening of accommodation facilities for receiving missions 4) Provision of a service to match partners 	<ul style="list-style-type: none"> - Collection of detailed information specific for each industry - Strengthening the linkage between MIDA and MTI, Small and Medium Industry Div. - Appointment of PDT members and dispatch overseas - Strengthening the accommodation facilities in MIDA by industry and country - Listing of potential partner companies 	<p>X</p> <p>X</p> <p>X</p> <p>X</p>		
<p>2. Credit and Credit Guarantee Strengthening Programme</p> <p><Objective></p> <ul style="list-style-type: none"> - Expansion of credit guarantee system for SMI 	<ol style="list-style-type: none"> 1) Accumulation of financial resources within the CGC with the assistance of the Bank Negara or international institutions, which are to be loaned to SMI through commercial banks 2) CGC's credit guarantee for above loans 	<ul style="list-style-type: none"> - Review of overall financing system for SMI in Malaysia - Establishment of a business expansion programme of CGC - Modification of laws and regulations related to the implementation of the programme 	<p>X</p> <p>X</p> <p>X</p>	<p>X</p> <p>X</p> <p>X</p>	

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Measures	Execution Measures and their Schedule		
				Immediately	At an early stage	After Preparation
<ul style="list-style-type: none"> - Expansion of the fund pertaining to soft-term credit for SMI - Provision of technical and managerial support for SMI 	3) Establishment of a consulting service section within the CGC					
3. Strengthening of Quality Control Activities <Objectives> <ul style="list-style-type: none"> - Raising quality consciousness among SMI for the development of local parts suppliers - Raising the quality levels and productivity of export products production 	1) Under the sponsorship of NPC and industry associations; <ul style="list-style-type: none"> - the holding of QC seminars - the holding of QC workshops in individual companies 2) The compilation of QC manuals and their distribution to local companies	<ul style="list-style-type: none"> - Support of NPC activities - Support for the activities of industry associations 	Invitation of foreign QC experts Overseas training of local QC experts	X X		

[Electronics Industry]

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Execution Measures and their Schedule			
			Measures	Execution Schedules		
				Immediately	At an early stage	After Preparation
<p>4. Development Programme for Small-and Medium-scale Manufacturing Enterprises <Objective></p> <ul style="list-style-type: none"> - Offering touring guidance in the areas of production technology, management and marketing skills for individual SMIs - Formulation of comprehensive policies to develop supporting industries in Malaysia and the coordination of activities of all related organizations for that purpose 	<ol style="list-style-type: none"> 1) Touring guidance to local SMIs on production technology with the cooperation of foreign experts and SIRIM staff 2) Touring guidance to local SMIs on management and marketing skills with the cooperation of foreign experts and the staff of such local organizations as NPC or MEXPO 3) Establishment of a policy and coordination section within MTI, Small and Medium Scale Industry Div. 	<ul style="list-style-type: none"> - Organizational expansion of MTI, Small and Medium Scale Industry Div. - Appointment of touring guidance experts in SIRIM, etc. - Appointment of touring guidance experts in NPC, MEXPO, etc. 	<p>Invitation of foreign experts in production technology</p> <p>Invitation of foreign experts in management and marketing</p> <p>Invitation of foreign experts in the SMIs development policy making</p>	X	X	
<p>5. Human Resources Development and R&D Expansion in the Field of Electronics <Objectives></p> <ul style="list-style-type: none"> - Fostering of engineers 	<ol style="list-style-type: none"> 1) Support to private R&D activities through industry-university cooperation and expansion of electronics related education 	<ul style="list-style-type: none"> - Promotion of the Design Laboratory for Information Technology Scheme, USM - Promotion of the Engineering Application Centre Scheme, UKM 	<p>Invitation of foreign experts in information technology</p> <p>Introduction of advanced</p>		X	X

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Execution Measures and their Schedule		
			Measures	Execution Schedules	
				Immediately	At an early stage
<p>and technicians required by the electronics industry</p> <ul style="list-style-type: none"> - Promotion of R&D activities through industry-university cooperation 	<ul style="list-style-type: none"> - promotion of Design Laboratory for Information Technology Scheme planned by USM - promotion of the Engineering Application Centre Scheme planned by USM <p>2) Reinforcement of vocational training facilities</p> <ul style="list-style-type: none"> - improvement of the curriculum of electronics courses run by the MARA Vocational Training Institute - expansion of the Electro Mechanical Technology course newly established by Polytechnics <p>3) Examination of the possibility of the establishment of a training support system such as SDF in Singapore</p>	<ul style="list-style-type: none"> - Expansion of the electronics courses in MARA Vocational Training Institute - Expansion of the courses of Electro Mechanical Technology, and Polytechnics - Investigation of the SDF operation in Singapore 	<p>equipment for education</p> <p>Invitation of foreign experts in engineering application</p> <p>Introduction of advanced equipment for education</p> <p>Invitation of foreign experts in course designing</p> <p>Invitation of foreign experts in such fields as robotics or computers</p>	<p>X</p> <p>X</p> <p>X</p>	<p>X</p> <p>X</p> <p>X</p>

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Execution Measures and their Schedule			
			Measures	Execution Schedules		
				Immediately	At an early stage	After Preparation
<p>6. Alleviation of the Problem of Industrial Wastes (F/S for the Construction of Industrial Estates for High-technology Industries)</p> <p><Objective></p> <ul style="list-style-type: none"> - Establishment of standards for wastes and the provision of a satisfactory infrastructure 	<ol style="list-style-type: none"> 1) Carrying out of a F/S on the construction of industrial estates 2) Provision of an infrastructure for industrial wastes in cooperation with existing agencies in charge of the development of industrial estates 3) Setting up of national and local standards for industrial wastes 	<ul style="list-style-type: none"> - Establishment of a committee for industrial wastes - Establishment of an overall infrastructure development programme for industrial waste water and sludge disposal - Expansion of environmental standards 	<p>Implementation of a F/S for the construction of industrial estates for high-technology industries</p> <p>Receipt of capital assistance</p> <p>Invitation of foreign experts for environmental standards</p>	X	X	X
<p>7. Establishment of a Financial Support System for the Development of Key Industries</p> <p><Objective></p> <ul style="list-style-type: none"> - Financial assistance for large-scale investment projects, the development of which is politically desired 	<ol style="list-style-type: none"> 1) Establishment of an investment/finance system through political means for the introduction of various kinds of long-term funds required for the development of key industries 2) Examination of the possibility of establishing tax and other incentive measures in order to 	<ul style="list-style-type: none"> - Investigation and study on a new investment/financing system - Investigation and study on a new tax and other preferential measures for investments for key industries 	<p>Overseas training in the field of institutional financing systems</p> <p>Invitation of foreign experts on long-term financing systems</p>	X	X	X

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Execution Measures and their Schedule		
			Measures	Execution Schedules	
				Immediately	At an early stage
8. Establishment of a system to Secure a Stable Supply of Electricity <Objective> - Establishment of a system for the stable supply of electric power required for the operation of plants by high-tech companies	<p>promote investment in key industries by institutional investors</p> <p>1) Improvements in the electric power infrastructure in order to provide a stable supply of electric power to IC and other high-tech manufacturers</p> <p>2) Easing of restrictions on in-house generating facilities for companies facing problems with power stoppages</p>	<p>- A long-term projection study on the supply and demand of electricity</p> <p>- Establishment of a power supply expansion programme</p> <p>- Establishment of an overall power distribution programme</p> <p>- Promotion of existing power infrastructure development programmes</p> <p>- Review of existing restrictions on the in-house generating facility ownership</p>	<p>Implementation of a F/S on power supply development</p> <p>Receipt of capital assistance</p>	X	X

[Rubber Footwear Industry]

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Measures	Execution Measures and their Schedule		
				Immediately	At an early stage	After Preparation
<p>9. Company Diagnoses and Guidance by Experts</p> <p><Objectives></p> <ul style="list-style-type: none"> - Eliminating all waste in each production process & maintaining and handling machinery well - Guidance on general corporate management such as inventory control and financial management 	<ol style="list-style-type: none"> 1) Company diagnoses and guidance at factory site by overseas experts 2) Management and technical seminars by overseas experts 3) Preparation of operation and management manuals etc. 	<ul style="list-style-type: none"> - Assignment of instructors at SIRIM & RRIM, etc., guidance for the private sectors - Strengthening activities of the Rubber Footwear Industry Association and NPC, etc. 	<p>Invitation of experts (Production technology)</p> <p>Invitation of experts (Cooperate management)</p> <p>Preparation of manuals</p>	X	X	
<p>10. Promotion of Rubber Footwear Product Standardisation, Testing, R&D and Technology Transfer Activities</p> <ul style="list-style-type: none"> - Expanding standards and raising product reliability - Support R&D activities for production technology - Promoting technology transfer to the private sectors 	<ol style="list-style-type: none"> 1) Expansion of SIRIM Standards for rubber footwear by overseas experts 2) Installing testing & inspection equipments in RRIM 3) Expanding the functions of RRIM & SIRIM and transferring technology to the private sectors 	<ul style="list-style-type: none"> - Stipulating additional rubber footwear Standards - Expanding testing & inspection facilities and strengthening training of instructors in RRIM 	<p>Invitation of experts (Rubber products standards)</p> <p>Invitation of experts (Testing & inspection and R&D of rubber footwear)</p> <p>Introducing Equipment</p>			X
						X

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Execution Measures and their Schedule		
			Measures	Execution Schedules	
				Immediately	At an early stage
11. Expansion of MEXPO Activities <Objective> - Strengthening of marketing capability	1) Strengthening of collection of overseas marketing information - collecting systematically information of markets, new products and technologies, etc. - timely transfer of collected information to the private sectors 2) Dispatch of trade missions overseas 3) Participation in overseas trade fairs	- Expanding the budget and staff of MEXPO	Information collection	X	
12. Intensification of Activities of the Rubber Footwear Industry Association <Objective> - Intensifying the activities of the association to raise the level of technology and management of the rubber footwear industry	1) Arrangement by the association of company diagnoses and guidance at the factory site by experts Arrangement by the association of management and technology seminars by experts Collection by the association of information	- Administrative guidance by the Government to intensify the associations' activities	Dispatch and reception of trade missions Invitation of experts Information collection	X X	

Name of the Programme and its Objectives	Contents of the Programme	Measures to be taken by Malaysian Side	Execution Measures and their Schedule		
			Measures	Execution Schedules	
				Immediately	At an early stage
	<p>association of information of overseas markets and technologies</p> <p>2) Increasing exchanges and meetings with overseas industry associations to promote tie-ups, etc., with overseas companies</p>				

VIII-2-3. Review of Priority Projects

It is desirable that the programmes proposed for each industry in the preceding section be fully and intensively implemented. However, the reality of the situation is such that due to various kinds of restrictions, such as limited funds and staff, an order of priority has to be set for implementing these programmes.

Because none of the programmes presented here have been proposed as a result of carrying out adequate feasibility studies, it is not possible, for example, to set the order of priority on the basis of actual figures such as the IRR which have been calculated for amounts to be invested and their effects. The alternative has therefore been to list the projects in the following order by adding the subjective judgements of the survey team to the criteria outlined below.

(1) Existence of established organisations in charge of the project

Higher marks are given for those projects that have already established organizations for their implementation than for those having no existing organisations in charge, due to their readiness for implementation.

(2) Maturity level of the project

Those projects which support some existing schemes are regarded as being at a high maturity level and are given high marks for priority ranking. Those projects for which the plans are in the planning stage are given the evaluation of medium and those projects which have to be started from planning are regarded as low maturity projects and given low marks.

(3) Urgency of the needs of the project

Those projects for which implementation is urgently needed are given high marks, while those projects for which implementation is needed but not urgent are given relatively low marks.

(4) Scale of investment in the project

For those projects that need a relatively large amount of capital investment for their implementation, their needs for the assistance from outside organisations are considered high and are given rather high marks, while those requiring small amounts of investments are given rather low marks due to the possibility of their own financing.

(5) Level of direct impact of the project on the development of the industry

For those projects which have direct impact on industrial development high marks are given while for those which would have only indirect influence lower marks are given.

(6) Necessity for support from other organizations

Those projects for which supports from other organizations are needed for implementation are given higher marks than those projects that would be implemented by the self-efforts of the existing organizations.

(7) Industries to which the project effects would extend

A review has been made of the industries contained which are covered by the projects. However, this will not be subject to the setting of priorities.

The results of an examination of priorities are as shown in Table VIII.2-2.

The five projects which have been selected as priority projects as a result of this process are listed as follows:

- 1) Intensification of Investment Invitation Activities
(Expansion of MIDA Activities)
- 2) Credit and Credit Guarantee Strengthening Programme for Small- and Medium-scale Industries
- 3) Development Programme for Small- and Medium-scale Manufacturing Enterprises
- 4) Promotion of Rubber Footwear Product Standardisation, Product Testing, R&D and Technology Transfer Activities
- 5) Expansion of MEXPO Activities

Table VIII 2-2 Results of Priority Projects Identification

	Intensification of Investment Activities (Expansion of MIDA Activities)	Credit and Credit Guarantee Strengthening Programme for Small- and Medium-Scale Industries	Strengthening of Quality Control Activities	Development Programme for Small- and Medium-Scale Manufacturing Enterprises	Human Resources Development and R&D Expansion in the Field of Electronics	Alleviation of the Problem of Industrial Waste (F/S for the Construction of Industrial Estates for High-technology Industries)
1. Existence of established organisations in charge of the project Polytechnic and others	Yes (MIDA)	Yes (CGC)	Yes (NPC)	Yes (MTI)	Yes (USM, UKM, KAEA, KARA, Polytechnic and others)	No
2. Maturity level of the projects	High (Presently being supported)	Moderate (in planning stage)	Low	High (plan already exist)	Moderate (in planning stage)	Low
3. Urgency of the needs of the project	High	High	Low	High	Moderate	Moderate
4. Scale of investment in the project	Medium	Large	Small	Medium	Large	Small
5. Level of direct impact	Great	Great	Moderate	Great	Moderate	Moderate
6. Necessity of outside assistance	Moderate	Strong	Weak	Strong	Moderate	Moderate
7. Affected industries	OA machinery & equipment, CRT, IC packages, Rubber footwear	OA machinery & equipment, CRT, IC packages, Rubber footwear	OA machinery & equipment, CRT, Rubber footwear	OA machinery & equipment, CRT, IC packages	OA machinery & equipment, CRT, IC packages	CRT, IC packages
Priority Selection	A	A	B	A	B	B

Note: (A) means that the project is selected as a priority project
(B) means that the project is given a secondary importance

	Establishment of a Financial Support System for the Development of Key Industries	Establishment of a System to Secure a Stable Support of Electricity	Company Diagnoses and Guidance by Experts	Promotion of Rubber Footwear Product Standardisation, Product Testing, R&D and Technology Transfer Activities	Expansion of MEXPO Activities	Intensification of the Activities of the Rubber Footwear Industry Association
1. Existence of established organizations in charge of the project Polytechnic and others	No	Yes (Electricity suppliers)	Yes (SIRIM,RRIM)	Yes (SIRIM,RRIM)	Yes (MEXPO)	Yes (Rubber footwear Association)
2. Maturity level of the projects	Low	Moderate	Moderate	Moderate (part in planning stage)	High (already receiving support)	Low
3. Urgency of the needs of the project	Moderate	Moderate	High	High	Moderate	Low
4. Scale of investment in the project	large	Large	Small	Medium	Medium	Small
5. Level of direct impact	Moderate	Moderate	Great	Moderate	Great	Small
6. Necessity of outside assistance	Moderate	Moderate	Moderate	Strong	Moderate	Weak
7. Affected industries	CRT	IC packages	Rubber footwear	Rubber footwear	Rubber footwear	Rubber footwear
Priority Selection	B	B	B	A	A	B

Note: (A) means that the project is selected as a priority project
(B) means that the project is given a secondary importance

VIII-3. Outline of the Priority Projects

The contents of the five projects which have been selected as priority projects are outlined below.

VIII-3-1. Intensification of Investment Invitation Activities (Expansion of MIDA Activities)

(1) Background of the Project

As for the three electronics-related industries (office electronic equipment, CRT, ceramic IC packages/substrates) selected for this survey, there is no domestic production at present and invitation of foreign capital is essential for the development of these industries. However, it is not possible to make a direct political intervention in investment decisions as foreign investment is a matter which is subject to the management strategies of individual companies. However, there are two measures which should be undertaken in Malaysia for the promotion of investment.

One is to carry out activities to attract foreign investment vigorously, including PR activities, and another is to improve the Malaysian investment environment so that the probability becomes higher that Malaysia will be chosen by foreign investors planning to expand production overseas. Furthermore, for the rubber footwear industry, another industry which has been included in the present survey, the promotion of tie-ups with foreign investment, etc, will play a great part in improving Malaysian-made goods and in expanding exports.

The promotion of investment in Malaysia, including foreign capital, is largely carried out by MIDA. The main procedures related to investment, such as the issuing of manufacturing licenses, providing investment incentives, and processing applications for expatriate posts are all handled by MIDA. Since becoming a "one-stop agency" in 1988 MIDA's functions have been strengthened and activities for the invitation of foreign capital have become more vigorous.

Another role carried out by MIDA is that of making proposals on industrial promotion policy. Although the Ministry of Trade and Industry is responsible for the development of industry, MIDA's relations with industry are the closest of any government ministry or agency and it is therefore in a position to be able to easily obtain information on the status of companies and industry.

Although in Malaysia there are no separate policies for each individual industry at present, the IMP which was announced in 1986 comes closest to this sort of policy. An IMP task force has been created within MIDA and it is responsible for making revisions

to the plan in line with actual conditions within each industry. However, further concrete policies are to be formulated in order to put this plan into practice.

(2) Objective of the Project

The objective of the proposed project is to invite foreign capital in the industries covered by the current survey. Because these policies would also be effective for the invitation of investment in other industries for which development is desired in the future, the proposed project should be incorporated as a permanent system in MIDA.

(3) Contents of the Proposed Project

1) Supply of information related to investment in the industries concerned

An investment guidebook is to be compiled in order to supply the required information on production within Malaysia related to the four industries in question, and to make it known that these industries are the priority industries. The guidebook is to be distributed among companies affiliated to the industries concerned.

2) Dispatch of a mission to attract investment

A Project Development Team for attracting investment which covers the four industries and parts manufacturers is to be dispatched for visiting companies and holding seminars and other similar activities.

MIDA has already sent Project Development Teams for two of the industries included in the first year survey to Japan.

3) Improving the system for receiving potential investors

As an industry which received approximately 60% of all foreign investment in 1988, the electronics industry is a core industry, and is an area in which foreign investment is expected to play an increasingly greater role in its development. Experts with detailed knowledge of the electronics industry are to be employed to act as consultants on investment in order to reinforce the consulting function provided to the industries.

4) Collection and supply of information on supporting companies

At present the Ministry of Trade and Industry's Small and Medium Scale Industries Unit (SMI) provides a service for introducing subcontracting companies through its data-base system in order to foster local subcontracting companies. MIDA also provides a service for introducing joint venture partners. This service is to be expanded to make it possible for both parties to follow up their enquiries and should seek to arrange the information it obtains in an organized system and to increase the number of companies to which it provides such information. In addition, a parts manufacturers' directory is to be prepared using this system.

5) Intensification of activities of existing IMP task force to implement critical recommendations made by the study. The committee of the task force is also to be established to work towards fostering subcontracting arrangements with local small- and medium scale enterprises

(4) Areas in which Assistance from Overseas is Anticipated

- 1) Assistance with the compilation of the investment guidebook
- 2) Assistance in the countries visited by the Product Development Teams (arranging appointments, holding seminars, etc)
- 3) Dispatch of experts to specific sectors such as the electronics sector

VIII-3-2. Credit and Credit Guarantee Strengthening Programme for Small- and Medium-scale Industries

(1) Background of the Project

An urgent task which must be undertaken as part of efforts to foster export-oriented industries in Malaysia is the fostering of locally-based small- and medium-scale companies which supply parts. Parts for use in export products are required to be able to withstand international competition in regard to both quality and price. Not only is assistance with technology required in order to foster local companies which can produce such products, but financial assistance for introducing modernized production plants and equipment is also an important task requiring attention.

In the course of interviews held with companies as part of the survey in Malaysia it was learned that a big problem facing many local small- and medium-scale companies was restrictions on the procurement of funds. The major factors given for this problem were: 1) the complicated procedure accompanying loans; 2) inability to provide collateral; and 3) high interest rates.

Faced with such conditions, the Credit Guarantee Corporation (CGC) has recently announced a new scheme which expands its functions.

(2) Credit Guarantee Corporation

1) Outline

The CGC was established in 1972 with the objective of providing guarantees for finance aimed at small- and medium-scale companies with low credit ratings. The Central Bank owns 20% of its shares, with the remaining 80% being held by 38 commercial banks. The corporation presently employs a staff of about 50.

During the period from 1973, when it started operation, through to the end of March 1989 the CGC granted credit guarantees worth a total of \$M2.8 billion to approximately 158,000 small- and medium-scale companies. But despite its record, the activities of the CGC have not necessarily been adequate. Although in line with Central Bank regulations Malaysian commercial banks must lend a certain portion of funds to small- and medium- companies through the CGC schemes, it would appear that there are a fair number of commercial banks which are not able to fill this quota. Furthermore, it is reported that there are difficulties in recovering up to M\$240 million, or 41%, of the CGC's current balance for guaranteed loans.

2) CGC's New Guarantee Scheme

In the past there have been the following three schemes for loans based on CGC guarantees. The guarantee fee for all three of these schemes was 0.5%, and the CGC guaranteed up to 60% of the amount of loans made by commercial banks.

i) General Guarantee Scheme (GGS)

This scheme was first implemented in 1973 and covered overdrafts and loans on deed. The maximum amount for loans was M\$200,000 for Bumiputra companies and M\$100,000 for non-Bumiputra companies. It also covered clean loans worth less than M\$30,000.

ii) Special Loan Scheme (SLS)

The scheme was launched in 1981. It offered clean loans of less than M\$50,000 to companies with a capital of less than M\$250,000 and a total credit limit of less than M\$250,000.

iii) Hawkers and Petty Traders Loan Scheme (HPT)

Starting in 1986, this scheme was launched in order to make it possible for unemployed people to commence business as street vendors, etc. \$M30 million was appropriated to fund this scheme from a new investment fund. The maximum amount for loans was small at M\$2,000, and conditions for the loans were comprised of a 4% annual interest rate, repayment to be made over a three-year period, and that the loans be unsecured.

Since 3 April 1989 the GGS and the SLS have been combined into a new scheme called the Principal Guarantee Scheme. The HPT continues to run as normal. The main revisions which have been made to the PGS and the other schemes in operation up until now are listed below:

- a. The limit of M\$250,000 capital for small- and medium-scale companies eligible to receive loans has been raised to a maximum of M\$500,000;
- b. The maximum amount for guarantees has been raised from the existing limits of M\$200,000 for Bumiputra companies and M\$100,000 for non-Bumiputra companies to an across-the-board limit of M\$500,000 for all companies, irrespective of race;
- c. The percentage of guarantee cover has been increased from 60% to 70%;
- d. Screening by the CGC at the time of awarding loans has been changed from automatic approval to the screening of individual cases.

At the same time as launching the new schemes mentioned above, the CGC has been reorganized in line with the following two objectives in particular:

- i) The provision of a business development service and a technical extension service aimed at strengthening the activities of small- and medium-scale companies;
- ii) The establishment of a credit inquiry system to facilitate a prompt and comprehensive check of the credit standing of small- and medium-scale companies.

(3) Objective of the Proposed Project

The proposed project aims at the further expansion of the financing scheme for small-and medium-scale industries through the adoption of the following measures in line with the start of above mentioned expansion plan of CGC activities.

- a. To allocate a certain amount of fund exclusively used for specific investment projects by small-and medium-scale companies in specific industries, which would enable to modernize these companies and to strengthen the linkage between large-scale assemblers and small-and medium-scale sub-contractors.
- b. To expand the consulting function of CGC in order both to provide assistance in regard to management and technology to individual companies receiving loans and to minimize the credit risk for these firms through such guidance.

(4) Contents of the Tentatively Proposed Project

1) Outline of the Project

The above objective of the project could be achieved within the framework of present CGC schemes by strengthening the scheme. As one of the measures to achieve the objective through the expansion of CGC both in organization and functions, however, the project mainly consisting of the following is tentatively proposed.

- a. A stock of financial resources to be used for loans is to be held within the CGC with the assistance and cooperation of the Central Bank of Malaysia or international financial organizations. Business consignment contracts are to be concluded between the CGC and commercial banks, and loans are to be made to small- and medium-scale companies through these commercial banks. The CGC is to grant credit guarantees to cover all loans made;
- b. A consulting service section is to be established within the CGC with the assistance of international technical cooperation organizations.

The outline of the system for implementation of the project is roughly summarized and shown in Fig. VIII.3-1.

2) Outline of Loans

a. Companies eligible for loans:

Small- and medium-scale companies with a capital of less than M\$500,000 and a work force of less than 200 employees. The loans are to be made to companies in the electronics industry and metal processing industry and other industries which are regarded as being the most important for Malaysia's industrial development.

b. Use of loans

In order to lessen the credit risk loans are to be restricted to use in investment in new plant and equipment or that used to modernize existing factories.

c. Maximum amount of loans

The amount made available through loans is to be raised to between M\$0.5-1.0 million in order to adequately cover requirements for the introduction of the latest machinery and equipment.

d. Reception

Applications for loans and the issuing of loans are to be handled by all the main and branch offices of commercial banks which have concluded contracts with the CGC to act as its agents.

3) Outline of Guarantee Activities

a. Loans eligible for guarantees

The CGC is to provide guarantees for all loans made according to the above.

b. Security

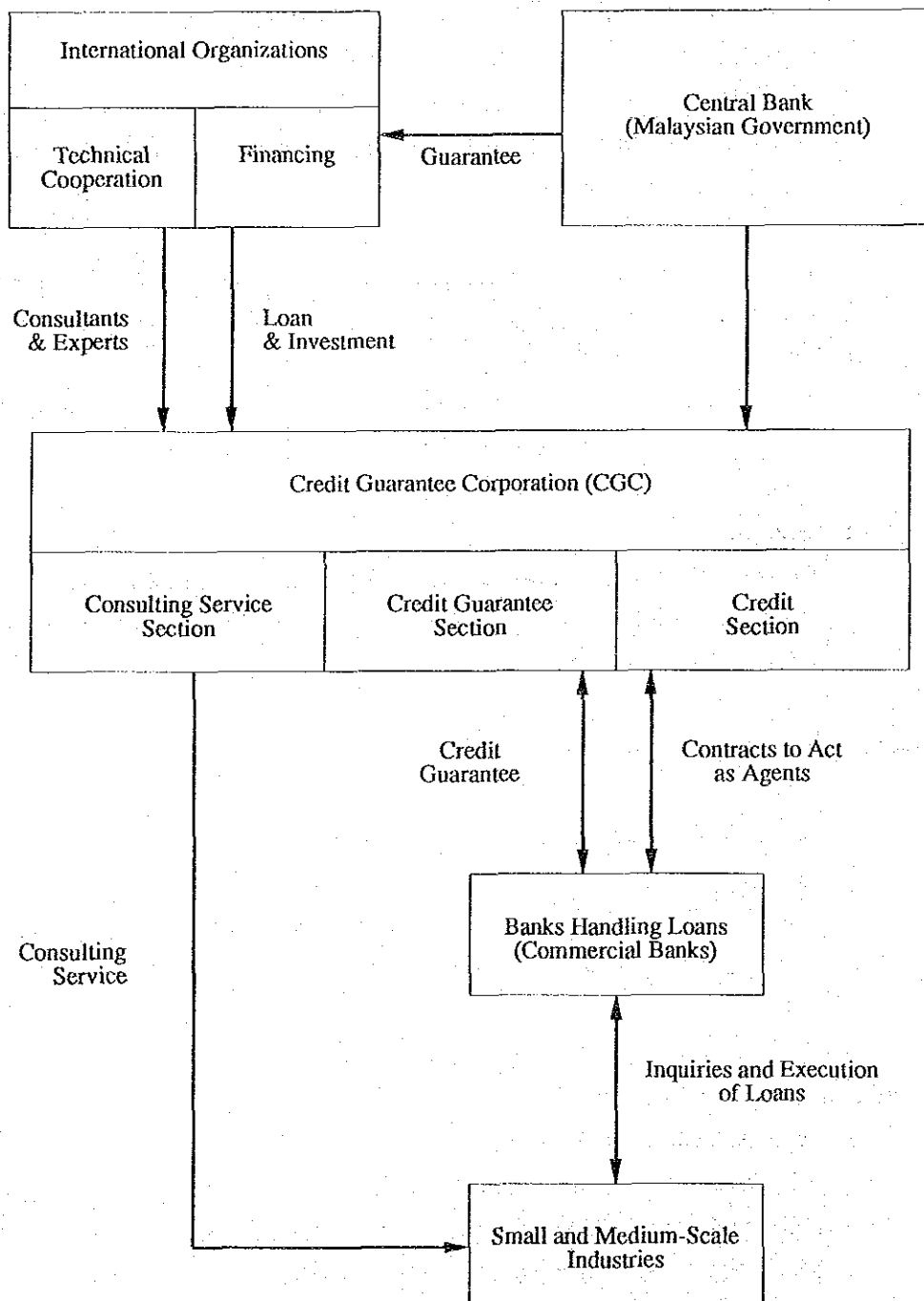
Those financial organizations acting as agents are not to receive security from companies taking out the loans for more than is required to cover their own risk.

4) Outline of Consulting Activities

a. Collection and dispersal of information

Information is to be gathered on the latest technology, plant and equipment, and machinery which are considered essential for the modernization of Malaysia's small- and medium-scale companies, and this information is to be supplied to these companies.

Fig. VIII. 3-1 Outline of a System for the Implementation of the Project



b. Creating business opportunities

Requirements for parts, etc, by export-oriented assemblers and by new investment companies are to be assessed and business opportunities arising from this are to be given to active local small- and medium-scale companies.

c. Guidance to small- and medium-scale companies in formulating new investment projects

d. Evaluation of new investment projects formulated by small and medium companies

Investment projects devised by small- and medium-scale companies are to be evaluated with the aim of making the projects sound so that there is a minimum level of risk for the company taking out the loan.

e. Following up activities

Guidance in the areas of technology and management is to be continued after the loan has been executed with the aim of developing sound businesses.

(5) Future Actions to be Taken

1) Implementation of a Preliminary Study

The project which is proposed here is still at the conceptual design stage and have to be adequately firmed up from practical operational standpoint. In order to promote the project, accordingly, the implementation of a preliminary study for both the elaboration of the proposed project and the investigation of other alternative plans to expand the financing scheme to small-and medium-scale industries in Malaysia should be conducted.

2) Strengthening of the Staff Capability of CGC

In order to expand the functions of CGC, the strengthening of the staff capability of CGC should be carried out through following measures:

- Overseas training of the staff members of CGC

_ Invitation of foreign experts who would make advice and guidance to expanded operational activities in CGC.

VIII-3-3. Development Programmes for Small- and Medium-scale Manufacturing Enterprises

(1) Background of the Project

The development of local small- and medium-scale enterprises, which are able to produce parts that are sufficiently competitive by international standards in terms of quality and price for export-oriented products and are able to supply these parts to assemblers for export, is essential for the development of export-oriented industries in Malaysia.

It is out of regard to this that recently in Malaysia a census of small- and medium-scale companies was undertaken for the first time in 8 years, and that the Small and Medium Scale Industries Unit is being put under the control of the Ministry of Trade and Industry, and, furthermore, policies affecting small- and medium-scale companies, which comprise the core of the development of supporting industries, are being reviewed through the formation of a joint public-private sector task force.

The Ministry of Trade and Industry is currently promoting its Trade Sub-Contracting Scheme, which is aimed at establishing a linkage between assemblers and parts manufacturers, as part of its policies for the development of supporting industries. Through this scheme the items which a large number of small- and medium-scale manufacturers are able to manufacture are recorded on computer, thereby providing a referral service which directs assemblers to sub-contracting companies which are able to meet their requirements. However, it has been reported that the ratio of referrals which have advanced to the contract stage is extremely low. This suggests that the majority of Malaysian small- and medium-scale manufacturers have not yet reached the stage where they are able to satisfy the requirements of assemblers in regard to both technology and management.

(2) Objectives of the Project

The main objectives of the proposed project are:

- 1) to create a linkage between assemblers and local small- and medium-scale parts suppliers by providing guidance in regard to production technology, management, and marketing by visiting individual small- and medium-scale companies which do not yet meet the requirements of the assemblers; and
- 2) to formulate a comprehensive policy for the development of small- and medium-scale companies with major emphasis on the development of supporting industries, and to

coordinate all of the activities of the various related public organisations concerned in order to put this policy into effect.

(3) Contents of the Project

- 1) Visits to local small- and medium-scale enterprises are to be made through the cooperation of staff from the Ministry of Trade and Industry's Small and Medium Scale Industries Unit, and staff from SIRIM and other technology-related government organizations with the purpose of raising production technology levels.
- 2) Visits to small- and medium-scale enterprises are to be made through the cooperation of staff from the Ministry of Trade and Industry's Small and Medium Scale Industries Unit, and staff from NPC and MEXPO and other similar organizations in order to provide guidance in regard to management and marketing. The cooperation of experts who have had overseas experience is also to be sought for this activity.
- 3) A Policy and Coordination Section is to be established within the Ministry of Trade and Industry's Small and Medium Scale Industries Unit, which, as well as coordinating the activities mentioned above, is to formulate a comprehensive policy for the development of small- and medium-scale companies as well as coordinate the activities of all government organizations concerned with the aim of the promotion of this policy.

(4) System for the Implementation of the Project

A system for the implementation of the project which has been proposed is outlined in Fig. VIII.3-2.

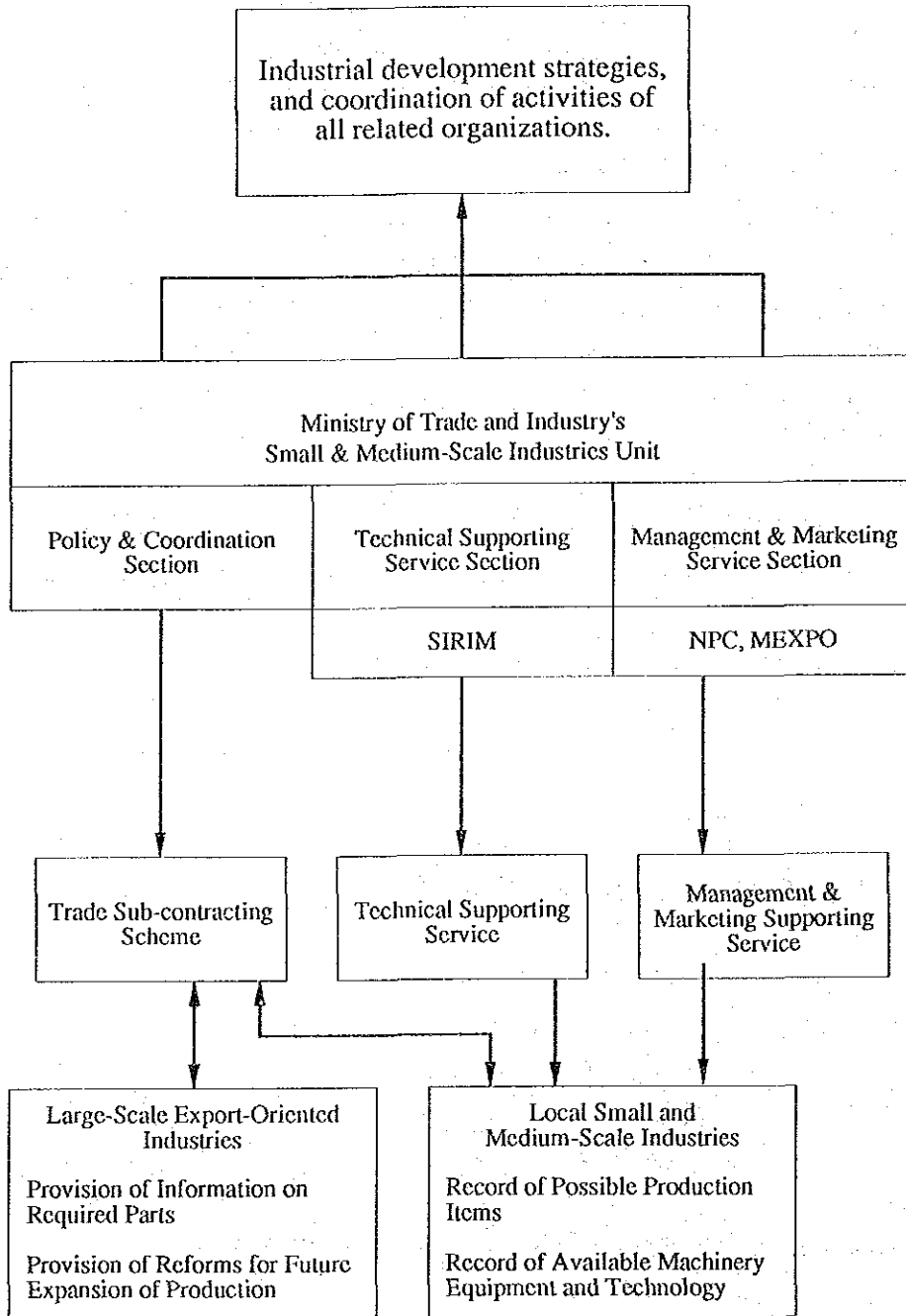
(5) Organisations in Charge of the Project

The Ministry of Trade and Industry's Small- and Medium-scale Industries Unit is to be put in chief control of the implementation of this project. This division and other organisations such as SIRIM, NPC, and MEXPO etc, are to be put fully in charge of the implementation of the project in the area of visiting individual small- and medium-scale companies for the purpose of providing guidance.

(6) Assistance From International Organisations

- 1) Dispatch of Experts

Fig. VIII. 3-2 Outline of a System for the Implementation of the Development of Small & Medium-Scale Manufacturing Industries Project



The dispatch and cooperation of experts in the following areas from international organizations is to be sought:

Small- and medium-scale enterprise policy advisor:	1 person
Management inspection/ marketing expert:	2 persons
Production technology guidance expert:	3 persons

2) Required Qualifications

Small and medium-scale enterprise policy advisor:

a university graduate who has had at least ten years experience in policy formulation for small- and medium-scale enterprises

Management inspection/ marketing expert:

a university graduate with more than 5-10 years of experience in this area

Production technology guidance expert:

a university graduate with more than 5-10 years of experience in this area

3) Terms

Small- and medium-scale enterprise policy advisor:	2 years
Management inspection/ marketing expert:	6 mths-2 yrs
Production technology guidance expert:	6 mths-2 yrs

(7) Future Actions to be Taken

At the end of 1988 the Malaysian government asked the Japanese government for its cooperation with a project which is relatively similar to the proposed project. The setting of finer project details and their implementation has been delayed partially due to the organizational changes of the Malaysian government, in which the Small-scale Enterprise Division of the National and Regional Development Ministry has been integrated and put under the control of the Ministry of Trade and Industry's Small- and Medium-scale Industries Division.

It is desirable that the following two steps be taken without delay in order to implement the project: 1) selection of industries within which small- and medium-scale enterprises may be eligible; and 2) organization of the roles of the various organizations in charge of the visits to individual companies.

VIII-3-4. Expansion of Inspection and Testing Facilities for Rubber Footwear

(1) Background of the Project

Among rubber footwear manufacturing firms at present, major companies have their own facilities for the inspection and testing of soles, uppers and completed products, but small and medium firms have no basic facilities and depend on the Rubber Research Institute of Malaysia (RRIM) or a university (USM) for the inspection and testing of their products. Even among enterprises which own such inspection and testing facilities, some are found not utilizing them effectively. Perfection of such inspection and testing facilities and training of the operating staff are essential for the rubber footwear industry to raise its level and develop its product into one of the major manufactured goods in the country.

Although the Malaysian Standards on rubber footwear have so far been set only for rubber shoes for school children, safety shoes and battle shoes, there is a positive indication that Industrial Standards will also be fixed for rubber footwear other than the above-mentioned three articles. This will first of all require the perfection of inspection and testing facilities, on which the standards are based, at official organs and training of operating staff.

(2) Objective of the Project

RRIM has its own inspection and testing facilities for rubber products, but it has very few facilities for the inspection and testing of rubber footwear. RRIM takes great interest in the inspection and testing of rubber products and hopes to set up a national testing center for rubber products in the future.

As for rubber footwear, RRIM does only the rubber-related inspection and testing of soles and not the inspection and testing of discolouration involving uppers. The Standards and Industry Research Institute of Malaysia (SIRIM) is to do the inspection and testing of uppers. But SIRIM has virtually no facilities to do so. Under such circumstances, it would be desirable to move the inspection and testing of uppers to RRIM which could undertake all of the inspection and testing of rubber footwear.

This project aims at introducing the inspection and testing facilities and training the operating staff for that purpose as well as transferring technology to private industries.

The inspection and testing facilities should fulfill the following requirements:

1) Evaluation of Physical Properties of Upper Materials

- [1] Ability to evaluate basic physical properties including tensile strength, elongation, tear strength and bursting strength.**

- [2] Ability to evaluate the degree of distortion of coloured material due to friction and fading.
- [3] Ability to evaluate changes in material due to cracking, discolouration and fading by heat and ultraviolet rays.
- [4] Ability to evaluate degree of abrasion of materials due to rubbing against each other.
- [5] Ability to evaluate capacity for enduring constant and repeated flexing of rubber footwear while in use.
- [6] Ability to evaluate low temperature resistance when rubber footwear is used in cold regions.

2) Evaluation of Materials Including Rubber Soles

- [1] Ability to evaluate basic physical properties including tensile strength, elongation, tear strength, hardness and tension set.
- [2] Ability to evaluate physical properties under the circumstances of changes in temperature which harden or soften rubber.
- [3] Ability to evaluate properties of rubber products such as hardening, cracking or softening as a result of aging due to heat, ultraviolet rays and ozone.
- [4] Ability to evaluate appearance and growth of cracks in rubber soles due to flex fatigue caused by repeated flexing while in use.
- [5] Ability to evaluate abrasion resistance of rubber soles which constantly touch ground and get worn away by rubbing against it.
- [6] Ability to evaluate peeling strength of rubber soles whose materials are glued to upper materials with adhesives.

3) Evaluation of Rubber Footwear

Ability to evaluate durability of rubber footwear composed of various materials combined by sewing or adhesion. These components have to endure great stress originating from constant and repeated flexing while in use.

(3) Contents of the Project

The following inspection and testing facilities should be introduced in addition to the existing facilities.

1) Inspection and Testing Facilities

Equipment	Type	Specification
1. Tensile tester to thermostatic chamber • STROGRAPH-T	TF-50	<ul style="list-style-type: none"> • Load cell: 1,000, 500, 50 kgt • Temperature chamber: -50°C—200°C • Crosshead Speed: 0.5—500 mm/min.
2. Flex cracking tester A. Repetition permanent fatigue tester	YSS Type	<ul style="list-style-type: none"> • Specimen Setting: 11 pcs. • Revolving Speed: 240 r.p.m. • Temperature range: -40°C—100°C
B. Flexo-meter	Standard Type	<ul style="list-style-type: none"> • Number of specimen: 12 pcs. • Upper clamp reciprocating Speed: 100 r.p.m.
C. Flexo-meter to low temperature chamber	LFR Type	<ul style="list-style-type: none"> • Number of specimen: 12 pcs. • Upper clamp reciprocating Speed: 100 r.p.m. • Temperature range: -30°C—70°C
D. Flex cracking tester to temperature chamber	De Mattia Type FT-204	<ul style="list-style-type: none"> • Number of specimen: 6 pcs • Flexing Speed: 300 ± 10 r.p.m. • Temperature range: -50°C—150°C
3. Flexing tester of goods		<ul style="list-style-type: none"> • Specimen Setting: 6 pcs.
4. Weather meter • Standard dewcycle sunshine super-life weather meter	WEL-SUN -DC	<ul style="list-style-type: none"> • Carbon arc. lamp runs: 60 hr • Temperature, Humidity regulator: RT—60°C, 30—70% RH
5. Ozone Weather meter	OMS- HVCR	<ul style="list-style-type: none"> • Ozone low concentration: 20—200 pphm • Ozone high concentration: 1—300 ppm. • Temperature range: (RT + 10°C)—60°C • Flexing unit to chamber

Equipment	Type	Specification
6. Fade meter • Standard UV long-Life Fade meter	FAL-5	• Carbon arc lamp runs: 48 hr. • Temperature range: (RT + 15°C)—70°C
7. Abrasion tester • Rotary abrasion tester	Taber type	• Rotation Speed: 60 r.p.m. or 70 r.p.m. • Load: 250, 500, 1000 g
8. Rubbing tester • Rubbing tester	Scott type FT-601	• Revolution: 25 r.p.m. to 120 r.p.m.
• Universal wear tester	Castam type	• Surface wear • Bending wear • Related Wear
9. Aging tester • Test tube aging tester	Test tube type	• Temperature regulation: (RT + 10°C)—230°C • Number of test tube: 24 pcs.
• STD Gear oven	Gear type 45SB	• Temperature regulation: (RT + 10°C)—300°C
10. Hardness tester • Digital type hardness tester equipment	Digital type RH-10A	• General Rubber: JIS A type SHORE A type
11. Burstine tester • Mullen bursting strength tester	Mullex type ML-45KG	• Low pressure gauge: 20 kgt/cm ² • High pressure gauge: 45 kgt/cm ²
12. Colour fastness to rubbing tester • Rubbing tester	JIS II type	• Number of Specimen: 6 pcs. • Reciprocating Speed: 30 r.p.m.
• Rubbing tester (Crock meter)	JIS I type	• Sliding Speed: 60 ± 2 reciprocations/minutes

Equipment	Type	Specification
13. Low temperature tester	201-S	<ul style="list-style-type: none"> • Temperature regulator: RT— -40°C • Refrigerator to chamber
14. Impact tester to safety shoes	JIS type	<ul style="list-style-type: none"> • JIST 8101
15. Exfoliation tester of tiptoe	YSS type	<ul style="list-style-type: none"> • Exfoliation strength gauge: max. 50 kgt
16. Adhesion (peeling) test jig to rubber soles		<ul style="list-style-type: none"> • 1 set

Necessary expenses are as follows:

Inspection and test facilities	¥50,850,000
Personnel expenses	¥10,500,000
Expendables and material expenses	¥1,650,000
Special service expenses	¥8,000,000
<u>Overseas study and training expenses</u>	<u>¥5,000,000</u>
Total	¥76,000,000

2) Experts to be Invited from Overseas

- [1] Inspection and testing expert: 1 person (with 15 years experience or more)
- [2] Inspection standards evaluation expert: 1 person (" ")
- [3] Dispatch period: Three months each

3) Dispatch of Overseas Trainees

- [1] Persons responsible for the inspection of uppers, soles and whole products:
One person each, totaling three people
- [2] Dispatch period: Three months each

4) Undertakings to be Put into Practice

- 1) Overseas training of persons responsible for the inspection and testing in RRIM should be made prior to the introduction of inspection and testing facilities.

- 2) Introduction of inspection and testing facilities, drawing up of inspection and testing standards and training of inspection and testing staff of RRIM should be made in parallel with each other.
- 3) Training of inspection and testing staff in private industry should also be made in parallel with the above.
- 4) Seminars and workshops on inspection and testing should be held.

VIII-3-5. Expansion of MEXPO Activities

(1) Background of the Project

The Malaysian Export Trade Centre (MEXPO) was established in 1980 as an organization under the Ministry of Trade and Industry in order to collect and supply information from overseas markets and to introduce Malaysian products overseas. Its activities include trade library services for information on the economy and trade, supply of information to the private sector, the preparation of lists registering Malaysian exporters and foreign buyers and inquiry services. MEXPO also has its own exhibition facilities for the exhibition of Malaysian products. Furthermore, its activities involve participation in trade fairs and exhibitions in overseas countries, the dispatch and reception of trade missions and the organization of various seminars and study meetings.

In light of the increasing use of its services at home and abroad, demand for the expansion of MEXPO is very strong. However, the limitations of MEXPO's budget and staff are stronger. In light of this, organisational expansion should be implemented. Taking into consideration its role in the collection of data in the area of economy and trade, however, a gradual improvement of its functions is recommended. Gradual steps can be taken through the expansion of the trade library and provision of information in closer tie-up with industry associations.

(2) Objectives of the Proposed Programmes

The main objectives of the proposed programmes are as follows:

- 1) Upgrading of the status of MEXPO to a level equivalent to that of a division of the Ministry of Trade and Industry and the expansion of staff and budget with the aim of strengthening its functions as a key organisation among Malaysia's trade promotion organisations.
- 2) Establishment of a system to regularly and systematically collect information on overseas markets and technologies in close tie-up with industry associations and other private organisations and to provide information to the private sector.
- 3) Promotion of marketing activities through closer tie-ups with the private sector in activities such as trade inquiry services, support for business negotiations, the dispatch and reception of trade missions, participation in overseas special trade fairs and studies of overseas markets.

(3) Contents of the Proposed Programmes

1) Expansion of the Trade Library and Strengthening of Information Supply to the Private Sector

The library has a collection of only 15,000 books and documents. The collection of data is sporadic and not well organized. Expansion of data in the library is necessary though an increase of the budget. In order to increase the collection of the library, requests for donations of books and data, if continuous donations can be expected, should be made by listing books and other data that would be useful. The supply of information to the private sector should be improved not only by using the existing media of the centre but also by asking industry associations for cooperation.

2) Strengthening Trade Inquiry Services and Support for Business Negotiations

It is reported that about 3,000 Malaysian exporters and 26,500 foreign buyers are listed on computer. It is necessary to increase the number of companies listed this way. At the same time, a system for an accurate, quick trade inquiry service and supporting activities for business negotiations is required through a well-organized collection of related data and documents.

The existing exhibition hall does not have enough space. The expansion of the hall is needed to allow for a systemic display of Malaysia's main export products and for support for business negotiations.

3) Strengthening of Marketing Activities Overseas

Regular participation in overseas special trade fairs and exhibitions as well as more frequent dispatch of export promotion missions is necessary. Overseas marketing activities should be strengthened by specifying priority markets and product items for market studies for export of Malaysian products.

4) Strengthening of Guidance for Improvement of Export Products

In order to be able to offer products which can meet the demands of overseas markets, experts should be invited for seminars and consultations on design, style, colour and required functions.

(4) Areas in which Assistance from Overseas is Anticipated

1) Strengthening of information collection and supply

- Efficient operation of the library
- Invitation of experts from overseas for seminars and consultation on design, style, colour and required functions

2) Participation in overseas trade fairs and exhibitions

- Dispatch and reception of trade missions
- Strengthening of overseas marketing activities through studies on overseas markets

3) Invitation of experts for seminars and study meeting

Annex

**1. Member Lists of Steering Committee
and Technical Committee**

Member List of the Steering Committee (October 21, 1988)

ATTENDANCE FROM THE MALAYSIAN SIDE

- | | |
|-----------------------------|---|
| 1. Dr. Abdullah Mohd Tahir | Chairman
EPU. |
| 2. Mr. Esparan | Ministry of Trade and Industry
(MTI) |
| 3. Mrs. Khodijah Abdullah | MTI |
| 4. Mrs. Kaziah A. Kadir | MIDA |
| 5. Mr. K. Sri Daran | MIDA |
| 6. Mr. Phang Ah Tong | MIDA |
| 7. Mr. A. Halim A. Rahman | SIRIM |
| 8. Mr. Hj. Tanzil Mohd Noor | EPU |
| 9. Mr. Allauddin Anuar | EPU |

ATTENDANCE FROM THE JAPANESE SIDE

- | | |
|---------------------------|---|
| 1. Mr. Heihachiro Aoki | Team Leader
JETRO |
| 2. Mr. Issei Koide | Deputy Team Leader
JETRO |
| 3. Mr. Tadao Tamai | JETRO |
| 4. Mr. Takehide Teranishi | JETRO |
| 5. Mr. Mitsuo Shimizu | Sumitomo Business
Consulting Co., Ltd. |
| 6. Mr. Hirofumi Ohnishi | Embassy of Japan |
| 7. Mr. Keizo Kagawa | JICA Malaysian Office |
| 8. Mr. Koichi Hayase | JICA Export (MIDA) |

Member List of the Technical Committee (December 8, 1988)

ATTENDANCE FROM THE MALAYSIAN SIDE

- | | |
|----------------------------------|---|
| 1. Mr. Geh Sim Hong | Chairman
Deputy Director-General (Operations)
MIDA |
| 2. Mrs. Zainun Aishah Ahmad | Deputy Director-General (Development)
MIDA |
| 3. Mr. J. Jegathesan | Director,
Industrial Promotion Division
MIDA |
| 4. Mrs. Fadillah Mohd. Yakin | Director,
Resource-Based Industries Division
MIDA |
| 5. Mrs. Khaziah Abdul Kadir | Deputy Director,
Resource-Based Industries Division
MIDA |
| 6. Mr. Adnan Mohd. Saaid | Deputy Director,
Electrical & Electronics Industries
Division
MIDA |
| 7. Mr. Wee Ton Wang | Electrical & Electronics Industries
Division
MIDA |
| 8. Mr. K. Sri Daran | Electrical & Electronics Industries
Division
MIDA |
| 9. Miss Inon Abdul Hamid | Electrical & Electronics Industries
Division
MIDA |
| 10. Mrs. Jalilah Baba | Resource-Based Industries Division
MIDA |
| 11. Mr. Onn Abdullah | Industrial Promotion Division
MIDA |
| 12. Mr. Abdul Halim Abdul Rahman | SIRIM |
| 13. Mr. Yahaya M. Lik | MEXPO |

ATTENDANCE FROM THE JAPANESE SIDE

- | | |
|-----------------------------|--|
| 1. Mr. Heihachiro Aoki | Team Leader
JETRO |
| 2. Mr. Issei Koide | Deputy Team Leader
JETRO |
| 3. Mr. Takashi Nobehara | Deputy Team Leader
Sumitomo Business Consulting Co., Ltd. |
| 4. Mr. Tsuneo Tanaka | JETRO |
| 5. Mr. Yoshitsugu Matsumoto | JETRO |
| 6. Miss Junko Sekiguchi | JETRO |
| 7. Mr. Hirofumi Ohnishi | Embassy of Japan |
| 8. Mr. Sadahiro Sugita | Embassy of Japan |
| 9. Mr. Koichi Hayase | JICA Expert (MIDA) |