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ESTABLISHMENT OF A TEXTILE UNIT (TU)

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THE KINGDOM OF THAILAND

(R) THAILAND:

Technical report: Textile and garment industry in Thailand ↑

Prepared for the Government of Thailand
by the United Nations Industrial Development Organization,
acting as executing agency for the United Nations Development Programme

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Keith Stuart-Smith

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1.0 CONCLUSIONS

1.1 Growth opportunities:

The textile industry in Thailand is critical to the national economy. In 1985 it is estimated that:

. the textile industry represented 31% of all persons employed in the manufacturing sector, i.e. 870,000 persons in a total workforce of 2.8 millions.

. export trade earnings from primary textile and clothing amounted to US\$ 1,267 mn. Exports are believed to represent only 20% of the factory sales value.

. the domestic textile market, which shows very little import penetration, is believed to have amounted to US\$ 5,068 mn.

The industry could be developed over the next 10 years to be a yet more significant contributor to the national economy. Growth patterns of between 60% and 120% could be realistic targets, as shown in the table.

Market	Year 1985		1995 - Scenario 1			US\$ mn (1985 values) 1995 - Scenario 2		
	value	% share	value	% share	% growth over 1985	value	% share	% growth over 1985
export	1,267	20	4,000	39	+ 216	7,000	50	+ 450
domestic	5,068	80	6,335	61	+ 25	6,990	50	+ 38
Total	6,335	100	10,335	100	+ 63	13,990	100	+ 120

Scenario 1 may be considered as the minimum growth pattern and scenario 2 as the realistic target to aim for. The key factors governing the further development of the industry are considered in Chapter 3.

It would be unrealistic to expect that employment levels would increase pro rata to the output value as the further development of the industry will inevitably be based on more modern technologies, higher labour productivity levels and, especially, to the sale of goods of a higher added value.

1.2 International comparisons.

The textile industries of Hong Kong, Singapore, Korea and Taiwan are compared with the industry in Thailand in Chapter 4 of this report. Some of the key factors and differences for consideration are shown in the summary table.

Element	Country				
	Thailand	Hong Kong	Singapore	Korea	Taiwan
• start year for industry	1970s	1950s	1960s	1960s	1960s
• export value 1985 US\$ mn	1,267	6,750	420	7,004	6,260
• export dependency (% of total sales)	20	92	70	75	70
• cost classification	low	medium	medium	medium	medium
• garment profile	basic	medium to high added value	medium added value	medium added value	medium added value
• manufacturing base	cotton/fibre to garments	mainly processing garments	knitting processing garments	fibre to garments	fibre to garments
• company orientation	manufact.	marketing	manufact.	manufact/marketing	manufact/marketing
• sales philosophy	passive selling	active selling	active selling	active selling	active selling
• industry development	government control	free economy	now free economy	national plan	national plan
• expansion/modernisation plans	arbitrary decisions by TPC	free	now free	controlled within plan	controlled within plan

In the years following their start times, the industries in the four countries were also characterized as low cost producers and passive sellers. In those times also the industry in Hong Kong was vertically structured with a large spinning and weaving sector. As the bottom export market sectors became over supplied with basic products from even lower cost sources, the industries had to adjust their philosophies and offer merchandise of higher added value, and, in

the case of Hong Kong especially, based on imported yarns and fabrics. This new philosophy depended for success on a new marketing strategy; the need was for active selling in the export markets rather than passive selling, where the buyers came to the suppliers with their orders.

The evolution of the industry in Singapore to some degree and especially in the case of Korea and Taiwan has been on the basis of a fully detailed national textile plan in which manufacturing capacities and utilization have been geared to local and international market projections of demand. Investments have been made in the most appropriate and latest technologies, within the national development plan, to achieve the quality, price competitiveness and variety of output demanded by the different markets. Government subsidised investments for the industry have been available in Korea and Taiwan.

In each of the four countries, governments have striven to create the best possible environment in which the industry has to operate.

1.3 Realizing the targets:

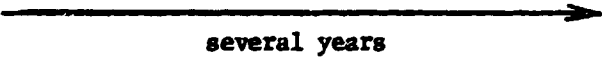
Although the textile industries of the other four countries are now benefiting from an earlier start-date of some 15 years and are well established in serving their export customers, the Thai textile industry has a very definite opportunity to convert its later start to an advantage. This opportunity for the Thai industry will be realized through having:

- . a strong domestic market base geared to a young, fashion conscious population and a trend moving increasingly towards ready-made garments.
- . a thorough knowledge of the needs of the export markets. All of the export markets are both fluid and dynamic. New suppliers will always be successful if they are able to offer advantages over other competitive sources.
- . a vertically-structured textile industry, starting from a cotton crop and man-made sub-sector that provides an important part of the industry's raw material requirements.
- . a relatively low cost of conversion in all sub-sectors of the industry.

. a willingness to reach international standards of cost, specification production, quality consistency and service.

. natural skills for design.

The changes envisaged in realization of these target opportunities are shown schematically in the model:

	present positions	phased change		
		phase i	phase ii	phase iii
a. target product profile	basic products	basic products	higher added value, basic products	optimal added value of wider product range
b. corporate philosophy orientation	manufacturing	marketing	marketing	marketing
. prime priority	production	selling	marketing and selling	marketing and selling
. secondary priority	passive selling	production	production	
c. requirements	low price	market diversification	. upgrade products sold into established markets . interdependence with customers	. upgrade products sold into established markets. . interdependence with customers
d. timing	now	short term	medium term	long term
				
e. driving factors	<ol style="list-style-type: none"> 1. skills development 2. investment in modernization, re-structuring, expansion, human resources, achievement of international standards. 3. market confidence and credibility, interdependence with customers. 4. increasing conversion costs relative to those in other 'emerging' countries. 			

In this model the changes envisaged may appear to be very simplistic; in practice they are very complex. The efforts required to generate change and to maintain the achieved new position are considerable but the results should be rewarding in terms of increased foreign currency earnings and employment levels.

Ultimate success will depend on the individual company performances and their separate capabilities to move from their present positions towards the phase iii goal. Some companies, operating individually, may achieve their targets - especially those selling speciality products into market niches - but these individual companies are most unlikely to achieve the national target for foreign currency earnings and employments. The maximum number of individual companies will be able to achieve their phase iii targets in the context of a national textile plan in which the government and the industry as well as the individual companies each have essential roles. In this respect the cases of South Korea and Taiwan may be taken as examples on which a plan for the Thai Textile Industry can be based.

1.4 The main conclusions are:

- . individual companies will be the vehicles for achieving the target opportunities.
- . the companies should operate within the framework of a well defined national textile plan.
- . the government and the industry as well as the individual companies have responsibilities to enable the national textile plan to function.
- . the national textile plan has to take account of the essential culture of the Thai industry.
- . separate plans will be required for the principle sectors:
 - primary textiles (fibres through to finished fabrics)
 - clothing
 - handicrafts

It is expected that some dependency between these three sectors will be identified and will be essential parts of each plan.

. the national textile plans will need to be prepared in the light of the best available data and updated annually. The phase iii targets will require several years - in the range 7-10 years - to be achieved.

. it is not envisaged that all textile companies will wish to become export oriented. Many companies are well geared to supplying the domestic market and will continue to do so with their present levels of costs and technology. Those companies that intend to export will wish to invest in modern resources.

. competition between 'low-cost' suppliers of basic products to the main export markets will become increasingly severe and established suppliers will need to move 'up-market' to achieve attractive margins. The industries in Hong Kong, Singapore, Korea and Taiwan have had to make this change during the 1970s and are well on their way to achieving their phase iii objectives.

The recommendations for a Thai National Textile Plan are presented in Chapter 2.

2.0 RECOMMENDATIONS

2.1 Strategic objectives:

The Government of Thailand together with the Thai Textile Industry are recommended to adopt some strategic objectives that will set targets for the planned development of the industry. Three of the prime strategic objectives will be:

- . to ensure that the industry is able to meet the demands of the growing domestic market.

- . to maximize sales into the export markets from both the industrialized and non-industrialized sectors. (The industry is already making a major contribution to Thailand's foreign currency earnings but there are many opportunities for this to be further increased.)

- . to provide the largest number of employment opportunities. (This is especially important with the rapidly increasing population, where a major part have an age of less than 21 years.)

These strategic objectives need to be identified and quantified. Using these objectives as a base, a plan can be prepared to cover the key factors for a planned development of the markets, manufacturing and technologies, that are discussed in the other chapters of this report.

2.2 National Textile Foundation (NTF)

2.2.1 Introduction

The recommendation of this study report is that an intelligence unit is established that will assist each of the sub-sectors of the textile, clothing and handicraft industry to achieve the Government's strategic objective targets. It has been proposed that this intelligence unit is named 'The National Textile Foundation' (NTF).

In the following sections of this chapter is presented a recommended profile for the NTF under the headings:

- 2.2.2 - organizations who expressed support for the unit
- 2.2.3 - outline terms of reference
- 2.2.4 - outline budget covering inaugural costs, operating expenses and special assignment costs
- 2.2.5 - financing
- 2.2.6 - staffing levels
- 2.2.7 - outline work programme
- 2.2.8 - time-frame

2.2.2 Support for the NTF:

The purpose and style of the NTF was formally presented, discussed and given outline support by the attendees at a seminar convened by the Ministry of Industries (Department of Industrial Promotion) on Wednesday, 6 August 1986. The seminar was entitled 'Shaping the future of the Textile Industry' and was chaired by Mrs. Sriprapan Foongkiat, Director of Textile Industries Division.

The attendees included representatives from the Ministries of Industry, Foreign Affairs, Commerce and Finance as well as representatives from the Textile Manufacturers' Associations.

At a council meeting of the Textile Manufacturers' Association (TMA) on Thursday, 7 August 1986 the proposal for the NTF was warmly received. The TMA requested that the NTF should:

- i. be established as soon as ever possible (1986).
- ii. have independent status, i.e. be independent of both the industry itself and of individual departments of the government so that it can have total objectivity.

2.2.3 Recommended terms of reference for NTF:

- i. responsibilities to the Cabinet Office of the Prime Minister
- ii. responsibilities to include:

National Textile Plan (NTP).

- the preparation of a national textile plan (NTP) for the textile industry that will enable the industry to achieve the strategic objective targets of the Government.

The NTP will cover the domestic and export market opportunities for the products of each of the industry sub-sectors, i.e. fibre; spinning; weaving; knitting; yarn and fabric processing, including printing; non-woven fabrics; clothing; household textiles; other made-up articles, including nets, ropes, cords and twine; carpets; industrial textiles. The handicraft sub-sectors

represent an integral part of each major sub-sector.

The NTP will identify the necessary capacity; levels of technologies most appropriate by sub-sector; the necessary targets for machine utilization and labour productivity levels.

Evaluation of feasibility studies.

- evaluation of feasibility studies submitted by would-be investors to identify if these modernization, re-structuring or expansion plans fit into the overall framework of the NTP and foreign currency expenditure.

Education and training.

- advising the government of the detailed educational and vocational training needs of the industry.

Management seminars and courses.

- organizing management courses and seminars in the range of necessary disciplines at all managerial levels.

Databank.

- establishing a databank of the Thai Industry capacities and outputs; publishing quarterly reports of aggregated capacities by sub-sector; aggregated sales by key product groups and employment levels. A commentary to be provided of the imports and exports of these same key product groups

Information Technology.

- usage of information technology, including access to world-wide computerized databases.

Market data and trends.

- collecting market data and trends (domestic market and export markets) to highlight the product opportunities and competitive supplier

activities. Fashion trends in terms of colour, styling and fibre usage is also to be collected. This market data is to be analyzed, edited and published regularly very quickly. The aim is to achieve i. products of higher added value; ii. market diversification and iii. product diversification

Impact of Government policies.

- assessing the impact of government policies on the industry performance and opportunities and reporting any difficulties to the government department concerned.

Government lobby.

- advising the government of problems that may prevent the industry from achieving the targets set in the NTP and recommending appropriate practical actions to recover the situation.

Competitive technologies and costs.

- maintaining a library of all available technologies for each manufacturing sub-sector to be in a position to advise the industry of the cost competitiveness of machine options.

Ad hoc studies.

- undertaking ad hoc industry and market investigations on behalf of the government or the TMA.

Overseas trade.

- participation in the organization of trade missions, fairs and exhibitions.

Domestic market.

- ensuring that the industry meets the demands of the domestic market in all aspects, i.e. volume, unit price, ready-made garment trends, channels of distributions, fashion and style, etc.

2.2.4 Outline budgets:

The outline budgets have been prepared under three headings:

- a. inaugural (start-up) costs covering the special costs leading up to the point of operation.
- b. routine operating costs covering the normal activities of the NTF and its permanent staff.
- c. special assignment costs covering expenses of ad hoc or other non-routine studies.

The provisional budgets have been prepared on indicative expenses in Bangkok. These will have to be negotiated in detail for the preparation of the final budget when the NTF project is approved in principle.

a. Inaugural (start-up) costs:

The estimated costs are Baht 6,000,000 (US\$ 240,000) with the following elements:

	<u>Baht 000</u>
. terms of reference, constitution (legal and professional fees)	200
. recruitment, advertising	200
. salaries	400
. secretarial services	50
. accommodation (provisional)	30
. stationery	50
. phone, telex, postage charges	20
. publicity, press announcements	50
. introductory seminar	625
. external adviser (fees, transport costs and hotel expenses)	1,400
sub-total	<u>3,025</u>

table continued

plus items to be capitalized:

- vehicles	700	
- computers	800	
- furniture/furnishings	500	
- phone, telex, etc.	300	
- others	200	
		2,500
sub-total		2,500
. contingencies (8.6%)		475
. Total inaugural costs	(Baht 000)	6,000

(Note: the capitalized items could be considered part of the operating expenses when identifying the source of funding.)

b. Routine operating costs (annualized basis)
- years 1 and 2.

The estimated costs are Baht 16,300,000 (US\$ 639,200) with the following elements:

	Baht 000
. salaries (section 2.2.5)	9,000
. accommodation (rental basis); 1500 sq.mts.	1,800
. services (electricity, etc.)	100
. computer systems (- mainly capitalized)	100
. furniture and furnishings (- mainly capitalized)	50
. information technology	625
. phone, telex, postage	100
. software and stationery	200
. transport	100
. professional fees (legal, financial)	100
. hospitality	150
. subscriptions	250
. external adviser, including fees transportation costs and hotel expenses (3 months chargeable time per year)	2,250
. contingencies : (10%)	1,475
Total	Baht 000 16,300

In 1985 the total 'official' exports, i.e. excluding border trade, was US\$ 1,017 mn. The routine operating costs indicated are equivalent to a levy of 0.063%. As the strategic objectives are achieved and export values rise, the operating cost will reflect a smaller levy.

c. Special assignment expenses.

It is estimated that these expenses could amount to Baht 10,000,000 (US\$ 400,000) in the first year. In the second year, these costs would be about Baht 1,350,000 plus additional charges for specific market work. These costs could be met from the levy on exports fund and partly from revenues raised from the distribution of information to the industry and government departments. The elements of these costs are geared to the special assignments; in the first two years it is expected that will be as follows:

	<u>Baht 000</u>
- as section 2.2.7 - time frame	
. domestic market survey, including questionnaire, preparation, 3 survey rounds, interviews, transport, say	1,250
. industry survey	) 8,000
. preparation of national textile plan)
. tax structure study	75
. contingencies (8.1%)	750
	<hr/>
Total	10,000
(subject to detailed costing)	

The total outline budget is estimated to be of the order:

	up to Yr.1 Baht 000	Yr.1	Yr.2	Yr.3	Yr.4
. inaugural costs	6,000	-	-	-	-
. operating costs - routine	-	11,400 1)	16,300 2)	14,500 3)	14,000 4)
. special assignment costs	-	10,000	2,000	2,000	2,000
Total per year	6,000	21,400	18,300	16,500	16,000

- Footnote:
- 1) includes only part of salaries and operating costs
 - 2) includes all operating costs, as tabulated above.
 - 3) includes all operating costs except as tabulated except for most of the external adviser costs
 - 4) does not include external adviser costs.

2.2.5 financing.

It is recommended that the costs of NTF should be met according to the type of expense:

- a : inaugural (start-up) expenses to be shared equally between:
 - . the Government of Thailand
 - . the Thai Textile Manufacturers Association
 - . UNIDO
- b : routine operating expenses to be met from the already accumulating fund of a levy on exports. The possibility of raising some own revenue from charging for statistics, market information and the like should be considered.
- c : special assignment studies to be also met from the sales of the study reports, as appropriate.

a. Inaugural expenses: it is proposed that these costs be shared equally between the three parties to identify their full support and commitment to the NTF. This approach will allow the NTF to have an independent and totally objective starting point.

It is estimated (2.2.4) that the inaugural costs will be Baht 6,000,000 (US\$ 240,000) and that each of the parties will offer a one-time grant of Baht 2,000,000 (US\$ 80,000). However, as discussed in section 2.2.4, some of the start-up costs (capitalized item) could be transferred to the levy on exports fund.

b. Routine operating expenses: it is proposed that these costs should be raised from the already accumulating fund from the levy on exports. Eventually, revenue may also be raised from the distribution of industry and market data from routine and ad hoc studies. It is calculated that when routine costs are at a maximum in Year 2, they will represent 0.063% of the levy placed on exports at 1985 levels.

c. The specific assignment expenses: it is proposed that these costs should be raised from the levy on exports fund. These special expenses are expected to be at a maximum level in Year 1 and at a level of Baht 10 million this would be equivalent to 0.039% levy on exports at 1985 levels. However, these special assignments are the catalyst for increasing exports so that the effective levy requirements should be considerably less in subsequent years.

The second phase of the NTF's work would include specific new assignments in the third year and subsequently, such as in fashion trends, garment engineering, that would increase exports and foreign currency earnings considerably. The NTF may also be involved in a quality testing centre that again would increase costs. These types of projects could be charged to the 'client Thai customer' so that the total costs should not increase the charge against the export levy unduly.

In summary form the financing requirement would be:

Source	<u>Baht 000</u>			
	Up to Yr.1	Yr.1	Yr.2	Yr.3
Government of Thailand	2,000	-	-	
Thai Textile Manufacturers' Association	2,000	-	-	
UNIDO	2,000	-	-	
Levy on exports	-	21,400	18,300	16,500

Footnote:

	<u>Baht 000</u>	<u>US \$</u>
	2,000	= 78,430
	21,400	= 839,200
	18,300	= 717,600
	16,500	= 647,000

2.2.6 Staffing levels.

The permanent staff of the NTF during the first two years of operations would probably be 25 at an annualized wage cost of Baht 8,892,000 (US\$ 355,700), as indicated.

Position	No.	Baht/ person 000	Baht total 000	US\$ 000
Chief Executive	1	1,200	1,200	48.0
Senior Research Staff				
- technology	1	840	840	33.6
- marketing	2	840	1,680	67.2
- production	2	840	1,680	67.2
Research Staff	6	240	1,440	57.6
Librarian	1	120	120	4.8
Economist/ computer programmer	2	240	480	19.2
Administrative assistants	5	144	720	28.8
Computer operators	3	144	432	17.3
Secretary	1	200	200	8.0
Driver/ Messenger	1	100	100	4.0
Total	25		8,892	355.7
(call)			(9,000)	(360)

The permanent staff will be aided by an external adviser in Year 1 and 2 and will be phased out in Years 3 and 4.

The permanent staff will be supported by external staff (local or foreign) for the special assignments, as discussed in 2.2.4.

2.2.7 Outline work programme.

It is envisaged that there will be a heavy work-programme during NTF's first year of operation when the national textile plan (NTP) is being prepared. This work load will identify the present situations in the installed capacity and in the markets of Thailand and exports. On this basis of this major work input the NTP can be prepared.

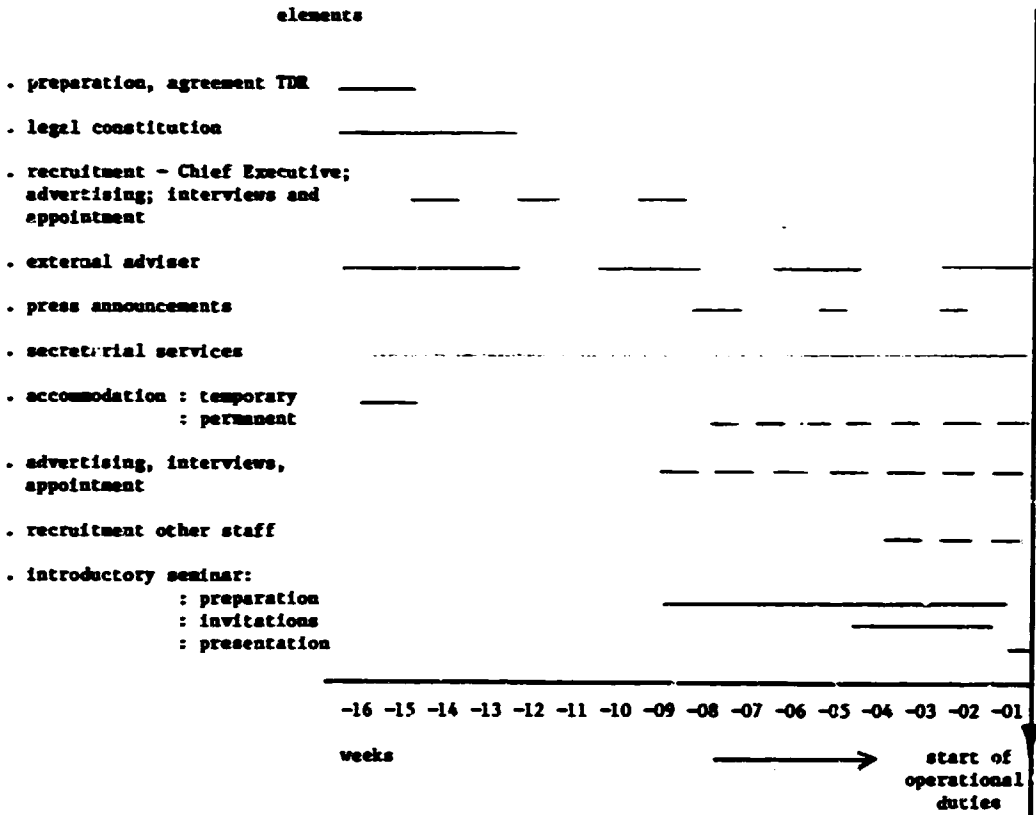
Thereafter, the plans for modernization, re-structuring and expansion can be detailed and the costs in terms of foreign currency expenditure identified. The second year for NTF will be given to monitoring market progress; evaluating feasibility studies submitted by Thai investors; making recommendations; and the collection, analyzing and dissemination of data to companies in the industry. It is expected that at this stage the NTF will also be concentrating on education and training at all levels; the important handicraft sector and marketing promotion levels.

These work programmes are also shown schematically in bar chart form in section 2.2.8.

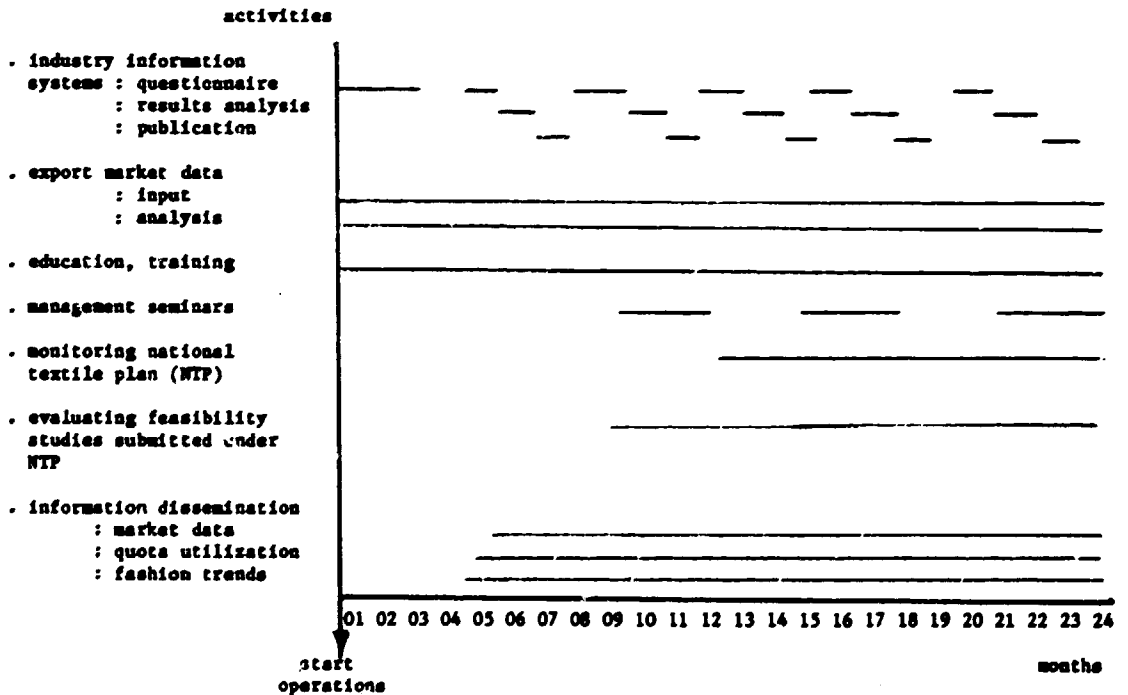
2.2.8 Time frame.

The proposed possible time-frame for the NTF's operations are shown on the bar charts, where month 1 identifies the start of operational activities. The period of inauguration precedes month 1, as shown in the first bar chart.

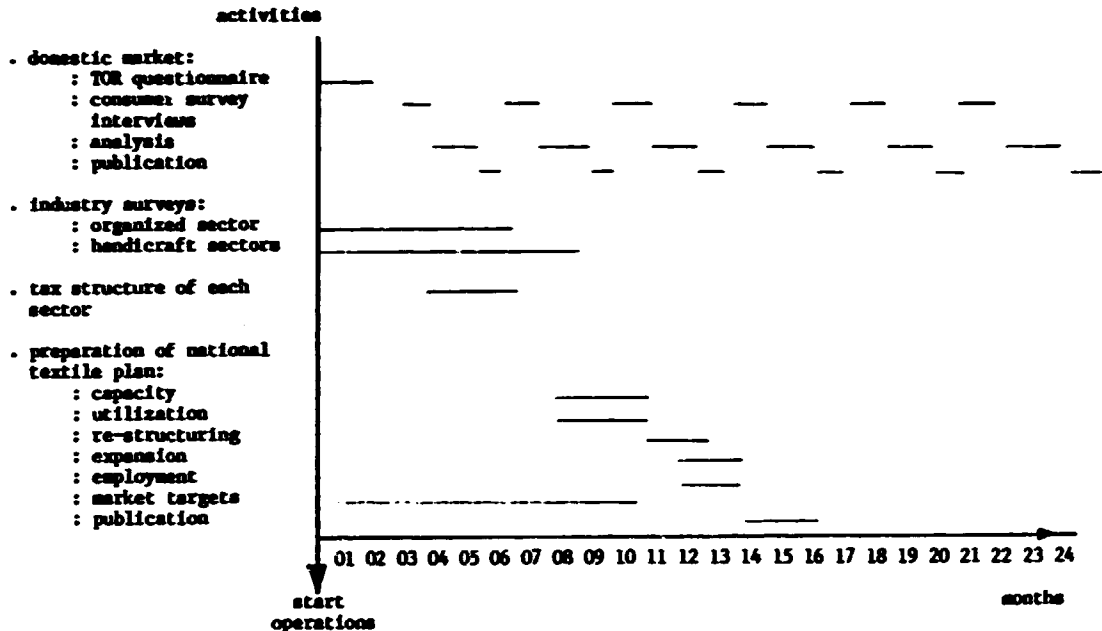
a. period of inauguration.



b. routine operational activities (months 1-24) to include:



c. special assignments (months 1-24) to include:



An inaugural time of 16 weeks has been considered but this will depend on local circumstances.

The routine operational activities are those that will be handled by the permanent NTF staff.

The special assignments will be managed by the permanent NTF staff with the work elements sub-contracted to local or foreign experts according to the work requirements of expertise and frequency. For example, the domestic market survey would be conducted by local consultant interviewers with the analysis made on NTF computers. The industry survey would probably be made by foreign textile consultants.

It is envisaged that an external adviser will be associated with the NTF during the inaugural period and also during the initial years of operations although his time requirement and input will decrease with time.

The work elements in the three bar charts are indicative only at this stage and would be fully developed at the appropriate time.

3.0 FINDINGS: THE THAI TEXTILE INDUSTRY

3.1 Outline profile:

The textile industry in Thailand is:

- . the largest employer in the manufacturing sector with an estimated 870,000 persons working in the primary textile, clothing and handicraft sub-sectors.

- . the major contributor to the nation's foreign currency earnings with an estimated export trade value of US\$ 1,270 mn in 1985.

- . a grouping of many small, medium and large sized companies, some of which are totally integrated operations from spinning through to garments but mostly are independent, single-purpose, manufacturing companies.

- . oriented to supplying the protected domestic market but is exporting a rising, estimated 20% of output into the overseas markets. The products that are exported are for a major part the same types of items sold into the domestic market but also include many speciality items such as Thai silk.

- . geared to exporting 'basic' products into the highly-competitive, high-volume, low price segments of the importing markets. These low-added value products are sold to a large extent when overseas buyers visit Thailand to place orders.

3.2 Industry information systems:

Neither the government departments nor the manufacturers' associations have detailed information of the industry. Data that is published are best estimates at a macro, national level only. For example, it is estimated that the installed textile machinery includes:

- . spinning spindles : 1.6-1.8 mn
- . weaving looms : 60,000
- . knitting machines : 40,000

Data is not available to show such important aspects as:

- . total installed capacity by machine type
- . actual production per main product group
- . capacity utilization
- . age of machinery (obsolete/semi-obsolete/useful/modern)
- . machine speeds
- . machine widths
- . speciality production capacity
- . technology levels
- . industry structure
- . number of companies
- . employment levels

etc.

Textile mill sales:

The aggregated sales of the textile mills by volume and value of the key products and product groups is not collected. As domestic market demand is also not known, it is extremely difficult to plan the further development of the industry. The foreign trade statistics show that 'official' exports amounted to US\$ 1,017 mn in 1985. It is unofficially reported that 'border' trade exports with neighbouring countries could amount to a further US\$ 250 mn. Furthermore it is estimated by a number of sources close to the industry that the total exports represented 20% of the textile industry output by value in 1985 and that the balance was sold in the domestic market. If these assumptions are correct, the total output of the textile industry in 1985 was:

<u>Markets</u>	<u>Output value US\$ mn</u>
i. Exports: official	1,017
border trade	250
sub-total (20%)	<hr/> 1,267
ii. Domestic: (80%)	5,068
Total	<hr/> 6,335

3.3 Planning and control (1985)

Whilst the textile industry lies within the private sector, the Government exercises an overall planning control through the Textile Policy Committee (TPC). This committee is charged with the responsibility of planning the development of

the industry at a national level in terms of modernization, expansion and expenditure of foreign currency. It has been operational since the early 1970s.

The 21 TPC members include:

- . the Minister of Industries - Chairman
- . Under Secretary of State, Ministry of Industries
- . Under Secretary of State, Ministry of Finance
- . Under Secretary of State, Ministry of Commerce
- . Under Secretary of State, Ministry of Agriculture and Commerce
- . Under Secretary of State, Ministry of Foreign Affairs
- . Secretary General, Board of Investment
- . Governor, The National Bank of Thailand
- . Secretary General, The National Economic and Social Board
- . Director General, Industrial Works Department (Ministry of Industries)
- . Director General, Industrial Promotion Department (Ministry of Industries) - Secretary
- . Director of Textile Industry (Ministry of Industries)
- . Director of the Industrial Economic Division (Ministry of Industries)
- . Financial expert
- . Police and Army representative
- . Textile expert
- . Private sector representatives: the Presidents of:
 - the Thai Synthetic Fibre Manufacturers' Association
 - the Thai Textile Manufacturers' Association
 - the Thai Weaving Manufacturers' Association
 - the Thai Garment Manufacturers' Association
 - the Thai Silk Association

The TPC also has a sub-committee (15 members) and a working group (7 members).

TPC members recognize that the decisions made by the TPC are taken arbitrarily. In the absence of definitive, detailed data on the textile industry of today and of the market opportunities in 1985 and 1995, the TPC is not able to consider the planned development of the industry to cover such aspects as:

- . modernization, re-structuring
- . expansion
- . the most appropriate technology level
- . employment levels and skill requirements

- . management, technician and operative training
- . market information
- . marketing and support
- . preparation of own product ranges, product development
- . active selling
- . product upgrading to higher added value goods
- . optimization of quotas for sensitive products in key markets
- . product diversification
- . market diversification

etc.

The TPC has been advised for the last few years that there is an excess of capacity and general investment has not been permitted. But within the industry, especially those companies gearing to sell into the export markets, modernization as well as expansion will be necessary to enable these mills to achieve international levels of productivity and quality at the most suitable levels of technology.

3.4 Future opportunities:

The Thai textile industry has a potentially exciting future of growth in servicing both the domestic as well as the export markets.

Possible scenarios for the output of the industry in 1995 (calculated in constant 1985 values) could be:

Market	Year 1985		1995 - Scenario 1			US\$ mn (1985 values) 1995 - Scenario 2		
	value	% share	value	% share	% growth over 1985	value	% share	% growth over 1985
export	1,267	20	4,000	39	+ 216	7,000	50	+ 450
domestic	5,068	80	6,335	61	+ 25	6,990	50	+ 38
Total	6,335	100	10,335	100	+ 63	13,990	100	+ 120

Both scenarios for 1995 show positive growth and are considered to be realistic minimum and realistic maximum levels to illustrate the potential opportunities for the industry.

3.5 Key factors for growth:

3.5.1 Export markets:

The key factors for the expansion of the industry into the export markets are:

. the world demand for textiles is less than the world supply. The differential will increase as an increasing number of supply sources come on stream from emerging, low-cost countries.

. competition in the lowest market segments for basic products, where low prices are the principal sales feature, will become most severe. This is the area where much of the Thai industry's products are now selling.

. in the short term:

- the full utilization of MFA quotas
- market diversification to sell into other national markets

Then product diversification

- into alternative products not now being offered
- upgraded products, i.e. goods of higher added value

. a full appreciation of the competitive environment in the target world markets, i.e. a detailed knowledge by each supplier of the buyers; the products required; the competitive suppliers; trends in fashion, styling, design and colour; prices, channels of distribution.

. active selling with product development in order to become more interesting suppliers

. service and market segmentation

The key sub-sector for export growth is the garment (clothing) industry. This sub-sector could expand, at least in part, independently of the up-stream industry sub-sectors, on the back of imported fabrics. The requirement is that the total industry expands to a definitive plan that is targeted on meeting market opportunities. Both the government and the industry have responsibilities in the preparation and implementation of the textile industry plan. The preparation of this plan, its implementation and monitoring is

discussed in Chapter 1, Recommendations of this report.

3.5.2 Domestic markets:

The key factors for the expansion of the industry in the domestic markets are:

- . the increase in population
- . the continuing urbanization of the people
- . the expected evolution of the national economy
- . the maturing of a very young population into marriages and families

4.0 FINDINGS:

International comparisons:

Hong Kong - 1	
Singapore - 2	
Korea - 3	and Thailand - 5
Taiwan - 4	

In this chapter comparisons are made of the textile industry and its relative importance to the economies of each country and the levels of support provided by government and other organizations.

4.1 Background considerations:

Table 1 : General background data

Element	1 Hong Kong	2 Singapore	3 Korea	4 Taiwan	5 Thailand
. textile industry start date	1950	1960	1960s	1960s	1970s
. textile and clothing 1985					
US\$ mn total output value	7,350	600	9,340	8,940	6,335
export value	6,750	420	7,004	6,260	1,267
% share export	92	70	75	70	20
data source	national statistics	national statistics	national statistics	national statistics	estimated
. textile industry jobs					
- textiles 000	58.3	2.7	334.1	309.1	120.0
- clothing	292.2	26.5	382.9	158.1	500.0
- handicraft	0.0	0.0	0.0	0.0	250.0
total	358.5	29.2	717.0	467.0	870.0
. all manufacturing jobs 000	854	195	3,351	2,300	2,800
. % share jobs in textiles	42	15	21.5	20	31
. output value per job 1985 US\$	20,500	20,548	13,026	19,143	728
. export value per job 1985 US\$	18,828	14,384	9,768	13,404	1,456

The textile industry in Thailand started some 15-20 years later than in the other four countries and consequently is a young and developing industry focussing primarily on supplying the domestic market. In the other countries the industries are characterized as of a higher level of maturity; medium labour cost; focussing on medium market segments with designed and quality products.

4.2 Manufacturing considerations:

As manufacturing costs increased in countries 1 and 2, so the manufacturing base has been reduced away from spinning and weaving. In countries 3 and 4 labour costs are increasing (almost 30% in Korea in the two years 1984-6) but the strong spinning and weaving bases remain, as shown in the comparative table 2.

Table 2 : Manufacturing bases

	1 Hong Kong	2 Singapore	3 Korea	4 Taiwan	5 Thailand
. manufacturing base:	mainly garments	knitting to garments	synthetic fibre to	synthetic fibre to	fibre to garments
. cotton crop					x
. man-made fibre production			x	x	x
. spinning	o		x	x	x
. weaving	o		x	x	x
. knitting	x	x	x	x	x
. processing	x	x	x	x	x
. clothing	x	x	x	x	x
. non-woven fabrics			x	x	

x : indicates a strong base for the industry

o : indicates a weaker base for the industry

This table represents only an important volume base in the industry that may not be indicative of output quality or sophistication of quality. In Korea and Taiwan the government and industry officials spoke of the weakness in their industries as the processing sub-sector (bleaching, dyeing, printing and finishing) that will be the area for major investments in the period 1986-1988 in order that the output quality may be improved and higher added value products achieved.

A comparison of employment levels and labour costs is shown in table 3.

Table 3 : Employment levels and labour costs 1985/6

	1 Hong Kong	2 Singapore	3 Korea	4 Taiwan	5 Thailand
• employment by sub-sector					
- cotton fibre	0	0	0	0	n/a
- man-made fibre	0	0	20,323	17,736 a)	
- yarn: staple	11,188 a)				
- yarn: continuous filament	n.e.s.)	2,121 a)	102,676 b)	177,431 b)	120,000
- woven fabrics/processing	39,762)		74,190 b)		
- knitted fabrics/garments	4,865)	1,247)	70,624)	116,274 b)	
- clothing (woven)	292,200)	25,219 a)	382,931 b)		+ 500,000
- other made-up goods	) 6,498 )	) 589 )	) 86,464 )	) 158,137 a)	n/a
- others	) )	) )	) )	15,394 a)	250,000
Footnotes:					
n/a	= not available				
n.e.s.	= not elsewhere specified				
a	= declining trend				
b	= increasing trend				
• labour cost per hour US\$					
. unskilled	0.80	1.55	1.50	1.53	0.30
. skilled	4.0	3.10	4.15	4.17	0.56
. % social charges included	0	0	+ 40	40	0

The decline in employment levels in countries 1-4 in specific sub-sectors as shown in table 3 may not necessarily reflect a decline in output. The target in each of the countries is to optimize labour productivity and/or to invest in the latest technologies, including automated equipment, so as to reduce labour costs as far as possible.

A comparison of the industry's natural resources in each country together with the perceived industry strengths and weaknesses are considered in table 4.

Table 4 : Comparison of natural resources and industry strengths

	1 Hong Kong	2 Singapore	3 Korea	4 Taiwan	5 Thailand
Industry natural resources:					
- textile fibre	. none	. none	. none	. none	. cotton
- labour	. dedicated culture	. dedicated culture	. dedicated culture	. dedicated culture	. low cost
- energy	. -	. -	. -	. -	. -
- other	. natural port	. natural port . central geographical position			
perceived industry strengths	. survival strategies . entrepreneurial approach . low taxation . free imports . active selling . design . low cost of living . market information and support . skilled management and engineers	. culture market accessibility . free trade . low duty tariffs on imports: - 0% on fibre to fabrics - 5% on garments but 1.5% ex.Asean countries	. well trained management and engineers . survival strategies . market support and information . industry support	. culture to be number 1 . well trained management and engineers . committed labour force . survival strategies . high productivity . modern equipment . market support and information . industry support	. low labour cost . artistic skills . manufacturing strategies
perceived industry weaknesses	. high labour turnover . very limited labour availability	. labour availability . high cost of living . infrastructure . personal taxation	. rising cost of labour . processing sector: 80% processing is on a commission basis	. rising cost of labour . processing sector	. manufacturing strategies . product development . taxation system . processing more than 90% on commission basis
average company size	. small	. small	. large	. medium	n/a

Each of countries 1, 2 and 3 developed their industries from a zero base position following a political upheaval, where the natural business spirit of many individuals created the survival strategies necessary to start and develop successful businesses.

4.3 Market considerations:

Market comparisons are considered in table 5. The high dependency of each country (except Singapore for which 1985 data was not available) on the United States market is to be noted: 49% of Hong Kong's exports; 37% of Korea's; 39% of Taiwan's and 22% of Thailand's exports.

Table 5 : National export and imports - 1985

	US\$ mn				
	1	2	3	4	5
	Hong Kong	Singapore	Korea	Taiwan	Thailand
. export products					
- fibre	0	0	355	229	15
- yarns	) 1,003	) 47	339	) 2,519	81
- fabrics	)	)	1,701	)	242
- garments	) 5,758	416	4,176	) 3,513	556
- other	)	n.e.s.	361	)	123
total exports	6,761	463	7,004	6,260	incomplete 1,208
. import products					
		n/a	tonnes	tonnes	tonnes
- fibre	943		451,096	381,005	155,207
- yarn	1,285		45,592	6,527	7,687
- fabrics	2,798		44,684	11,613	23,023
- garments	170		220	0	50
- others	63		181	0	n.e.s.
total imports	5,259		541,773	399,145	185,967
Trade Balance	1,502		n/a	n/a	n/a
. exports by country of destination:					
					incomplete
. USA	3,320	n/a	2,599	2,415	285
. Canada	271		299	218	24
. W. Germany	598		376	181	75
. United Kingdom	564		197	81	29
. France	61		102	n.e.s.	17
. Italy	29		) 227	n.e.s.	27
. other EEC	181		)	n.e.s.	20
. EFTA	351		110	n.e.s.	30
. Middle East	32		n.e.s.	255	88
. Singapore	78		n.e.s.	253	43
. Hong Kong	-		423	919	19
. E. Europe	n.e.s.		-	n.e.s.	n.e.s.
. China RPC	335		-	n.e.s.	n.e.s.
. Japan	229		966	677	13
. others	712		1,434	1,261	167

Hong Kong is the world's largest exporter of clothing of which much is based on imported raw materials, yarns and fabrics.

Taiwan restricts imports of most products through high import tariffs but these are to be progressively reduced following recent bi-lateral trade negotiations under the MFA.

Marketing considerations are compared in table 6. The perceived marketing performance of Thailand in comparison with countries 1-4 is indicative of the later involvement of the industry (15-20 years later) and the need for assistance in marketing and selling.

Table 6 : Marketing considerations

	1 Hong Kong	2 Singapore	3 Korea	4 Taiwan	5 Thailand
Domestic market:	. exposed	. exposed	. protected by controls/ tariffs	. protected by controls/ tariffs	. protected by tariffs
- import penetration	. high	. high	. very limited	. extremely limited	. extremely limited
Export market perceived factors:					
- active selling	4	4-5	4	4	1-2
- market knowledge	5	4-5	4-5	4-5	1-2
- design, styling	5	4-5	4	3-4	2
- customer service	5	5	4-5	3-4	4
- selling into market niche	4-5	4	4	4	1-2
- medium to high added value	4-5	4	3-4	3-4	1
- interdependence with customers	4-5	4	3	3	1-2
- product innovation	4-5	4-5	4	3-4	2
- image, credibility	4-5	4	3-4	3-4	2-3
- quota utilization	5	4-5	4-5	4-5	3
- non quota items	5	4	4	4	3
Comparative score	51.5	47.5	43.5	41.5	23.5
Average	4.7	4.3	4.0	3.8	2.1

Ratings:

1	very poor
2	poor
3	average
4	good
5	very good

These perceived factor ratings target some of the key considerations for government and industry but there are others that would be included in a detailed development plan for the industry.

Quota allocations, utilization and the administration of export licences by the five countries are considered in table 6a.

Table 6a : Export administration

	1	2	3	4	5
	Hong Kong	Singapore	Korea	Taiwan	Thailand
• quota negotiations	1 A	A	AB	B	A
• quota advisers	C	C	B	B	B
• administration of export licences/ outward declarations	A	A	B	B	A
- time required, maximum hours	48	72	72	2	72 est.
• quota allocation by (for Jan 1 year start)	Nov.	Nov.	Dec.	Dec.	Nov.
• quota allocation	2				
basis					
- past performance	x	x	x	x	x
- new companies	x	x	x	x	x
- free (part)	x	x	<	x	x
- export producer/ non producer	x	x	o	o	x
• quota transfer					
- to official administrator	x	x	x	x	x
- between companies with approval of administrator	x	x	o	o	x
- between companies without approval of administrator	o	o	o	o	o
- on temporary basis	x	x	x	x	x
- on permanent basis	x	x	o	o	o
- bonus for early return of non- utilized quota	x	x	x	x	x
- penalty for late return of non- utilized quota	x	x	x	x	x
• quota utilization	v. high	high	high	high	moderate

Footnotes: 1 Organizations:

A : departments of trade, foreign affairs, commerce
B : textile federations
C : industry representatives

2 o : no
x : yes

Whilst the system for allocation, transfer and return of quota is well prepared in the countries (at the present time in Thailand with the 1986 introduction of computerization), the practical experience of operation is not yet effective in all countries. In Hong Kong the system of issue, monitoring, return and control seems to be highly efficient.

4.4 Industry support considerations

The industry in Hong Kong has developed with the maximum level of freedom for the entrepreneur to invest in any manufacturing industry sub-sector that he identifies for himself. At the same time, it remains the responsibility to dis-invest and to diversify into other activities as market demands change and margins decline. In Singapore, the government had an overall plan for mixed industrial manufacturing and did not permit businesses to proliferate as textile entrepreneurs identified potential market opportunities. In both Korea and Taiwan, the government's prepared detailed development plans for the industry as well as finance for investment in companies from the earliest days of the industry.

Whilst the four countries have had different approaches to the manufacturing and investment, they also have several themes of a common approach in their provision of:

- . market knowledge
- . national infrastructure (e.g. road, ports, communications)
- . education and training at all levels
- . a streamlined administration and bureaucracy
- . information and support for new technologies and the like

These industry considerations are compared in table 7.

Table 7 : Support for the textile industry

	1 Hong Kong	2 Singapore	3 Korea	4 Taiwan	5 Thailand
years of strategic importance of the industry	1950s	1960s	1960s	1960s	1970s
Government philosophy for textile industry	<ul style="list-style-type: none"> . free market economy . industry may invest and disinvest to needs . create right environment, infra-structure 	<ul style="list-style-type: none"> . national plan . controlled investments by industrialists . create right environment, infra-structure 	<ul style="list-style-type: none"> . total national plan with financial support 	<ul style="list-style-type: none"> . total national plan with financial support 	<ul style="list-style-type: none"> . government plan but arbitrarily controlled investments by industrialists
export incentives:					
- subsidies	1	1	4	4	1
- lower interest rates	1	1	4	3	1
- credit guarantee scheme	1	1	4	3	4
- tax rebates	1	1	4	3	1
Rating:	1 minimal	2 limited	3 considerable	4 significant	

Countries 1-4 are especially strong in the dissemination of export market information and support, as presented under some of the key headings in table 8. These information and support programmes have been operating for many years and have made significant contributions to the high gearing of the industries increasingly into the middle market segments away from the bottom end of the markets.

Table 8 : Export assistance : market information and support

	1 Hong Kong		2 Singapore		3 Korea		4 Taiwan		5 Thailand	
. market data availability	A	5	F	4	D	5	AD	5	F	2
. market research projects undertaken	AB	4	-	1	D	5	AD	5	F	2
. fashion consulting, design	B	3	-	1	D	3	AD	5	-	1
. feasibility studies undertaken	-	1	-	1	D	5	A	5	GH	2
. overseas trade offices	B	5	F	5	D	5	B	5	F	3
. overseas commercial offices	F	5	F	5	F	3	C	5	F	3
. trade missions	B	5	F	4	D	5	BA	5	FG	3
. trade promotions, fairs	B	5	F	5	D	5	D	5	F	1
. export inspection	B	5	-	1	D	5	D	5	F	1
. production consultancy	-	1	-	1	D	4-5	D	5	G	2
. trade mark verification	B	5	-	1	D	4-5	D	5	-	1
. accounting, auditing services	-	-	-	1	D	4	D	5	-	1
. textile testing centre	B	5	-	-	D	5	D	5	G	4-5
. technical support:										
- productions										
- quarterly	-	1	-	1	AD	5	-	5	-	1
- weekly	-	1	-	1	AD	5	-	5	-	1
- technology promotion	ABI	4	FI	4	AD	5	AD	5	G	2
- " projects	I	4	FI	4	AD	5	AD	5	-	1
- machine modernization, upgrading technology	-	1	-	4	-	5	-	5	-	1
			government incentives		government incentives		government incentives			
Activities financed by	. levy on exports		. gov. levy on exports		. was gov. now gov/ industry		. levy on exports		. gov.	
Organizing body	F B		F D		D		D			
Footnotes:	<u>Organizations</u>					<u>Level of support</u>				
	A : Productivity Centre					1 : minimal				
	B : Trade Development Council					2 : limited				
	C : Ministry of Economic Affairs					3 : some				
	D : Textile Federation					4 : considerable				
	E : National Bank					5 : significant				
	F : Ministry of Commerce, Department of Trade									
	G : Ministry of Industries									
	H : Ministry of Science/Technology									
	I : University									

Each of the countries places great emphasis on the creation of well qualified personnel and their introduction into the industry (table 9).

Table 9 : Educaton and vocational training

	1 Hong Kong	2 Singapore	3 Korea	4 Taiwan	5 Thailand
. textile technologists, engineers	D	A D	D	B D E	D
. production management	D E	A	A	B D E	C
. supervisory development	D E	A	A	B	C
. computer engineers	D E	A D	A D	B	-
. management control systems	E	A	A	B	-
. garment engineers	E	A	A	B	-
. quality control	E D	A	A	B	C
. mechanics, electronic engineers, technicians	E D	A D	A	B	-
. sewing, cutting, buying	E	A	-	B E	-
. product development, innovation, fashion	E	A	-	B E	-
. pattern making etc.	E	A	A D	B	-

Footnotes:

Organizing bodies:

- A : Textile & Garment Manufacturer's Associations
- B : Textile Federation
- C : Ministry of Industries, Education
- D : Universities, Polytechnics
- E : Productivity Centre

Countries 1-4 train many textile industry engineers and technologists. The industries in those countries offer very many positions to these trained people in the companies. In Thailand it is reported that whilst many people have been highly trained, they are unable to obtain work in the industry.

For key job positions, countries 1-4 provide overseas training either at formal educational courses or at ad hoc seminars and the like. Thailand also sends key personnel overseas for training.

The social, financial and national infrastructure factors in which the industries have to operate are the responsibilities of the separate governments. In table 10 an objective comparison of these environmental factors is presented.

Table 10 : Environmental factors

	1 Hong Kong	2 Singapore	3 Korea	4 Taiwan	5 Thailand
. social environment					
- personal taxation	low	high	low	low	high
- corporation tax	low	high	low	low	v.high
- social security for labour	v.low	medium	v.high	v.high	v.low
- sales tax	v.low	high	low	low	v.high
. financial environment					
- free port	yes	yes	no	no	no
- import quotas	no	no	no	no	no
- import duties	no	small-0	high	v.high	high
- interest rates	low	low	low	low	high
- foreign exchange control	none	none	none	none	none
- duty free zone	yes	yes	none	none	planned
- investment climate	v.good	good	controlled within plan	controlled within plan	controlled -arbitrary
. infrastructure					
- phones, telex tax, etc.	v.good	v.good	v.good	v.good	available
- road, freight	v.good	v.good	good	good	available
- port, harbour, rivers	v.good	v.good	good	good	good
- air	v.good	v.good	good	good	available
- customs activity: exports/imports	v.fast	v.fast	fast	fast	slow
. joint ventures overseas investment in country - welcome	yes	yes	yes	yes	yes

4.5 Summary

The countries 1-4 differ from Thailand in many significant ways:

- . their industries are mature, having been established some 15-20 years earlier than in Thailand. In relative terms the industry in Thailand is, as yet, immature.
- . their production costs are no longer low but have reached a medium band where business strategies have to include active selling, based on developed product ranges, quality consistency and service. In Thailand, passive selling, based on low production costs, remains the general rule but it is recommended that the industry converts to active selling.
- . countries 1-4 publish very detailed capacity and production data on a regular basis to inform the governments and the industry of the ever changing profile in demand and supply. (Industry Information Systems).
- . the governments and industries in countries 1-4 focus on optimizing productivity levels and modernization of production facilities with the most appropriate technology. This is not the case in Thailand.
- . the government in countries 1-4, in some cases directly or through agencies, ensure that the companies are fully informed of export market data to facilitate the maximum export value of upgraded and alternative products.
- . company structures in countries 1-4 are such that trained engineers and technologists are readily absorbed in large numbers. In Thailand only a very limited number of such trained management find positions readily in the industry.
- . the Thai government philosophy for developing the textile industry is closer to that of the Korean or Taiwanese governments. In these two countries carefully developed national plans, based on market projections, were prepared and implemented. These plans are updated to allow for highly competitive activities in all the world markets. In Thailand, the textile industry may invest only with the concurrence of the Textile Policy Committee who are able only to take arbitrary decisions in the absence of a national

plan for the industry and the need to protect the very large handicraft sector.

In Hong Kong, and more recently in Singapore, the free market economy philosophy is applied to the development of and investment in the industry.