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THE TEXTILE AND CLOTHING INDUSTRY IN VIET NAM:

A FILIERE APPROACH

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INTRODUCTION

Following the preparation of an initial overview and assessment of Viet Nam's industrial development constraints and prospects[1] and the ensuing discussions on the formulation of an industrial strategy, UNIDO was requested to carry out a case study on the "filière" approach. Such an approach was seen as a possible starting point for the elaboration of an industrial strategy. It entails analyzing a production chain (or "filière") of an industrial subsector covering all major stages from the raw material base through its various production stages to the final products and their distribution. Such an analysis was firstly, to reveal weaknesses and prospects in the various parts of the subsector and secondly, to assess the possibilities of enhancing the performance and growth of the entire subsector through specific measures at each stage. The scope for and impact of intensified production integration as well as greater linkages with other subsectors and functional areas would play a central role in the analysis.

This report attempts to construct ˄ "filière" for the Vietnamese textile and clothing sector. It is partly to serve as an illustration of the filière approach and partly to indicate the areas which require particular attention by the planners and decision-makers in order to enhance development of the various stages of this specific subsector system.

The report is based on data and ˙ formation obtained through official channels in Viet Nam. It is important to point out, however, that the report is not meant to constitute ᾳ full-fledged industrial subsector analysis. This would have required a slightly different approach and above all a significantly greater and more detailed collection and analysis of data. Instead, the report indicates which further information and analyses would be needed at each stage of the production chain, to enable critical and strategic policy decisions and measures in the event that the filière approach be fully applied to this subsector.

The report is based on a three-week fact-finding mission in Viet Nam by Mr. Anton Gaelli of the IFO Institute for Economic Research, Munich, as UNIDO consultant, in collaboration with the State Planning Committee, in particular Prof. Tran Phuong, the Head of the Institute for Long-Term Planning at the SPC, Mr. Nguyen Phi Hung, Director of Industry Development at SPC and Mr. Pham Quang Ham, Deputy Director of Industry Development. Close collaboration was also provided by Mr. Bui Van Long and Mr. Nguyen Truong Sinh of the Textile and Clothing Federation. A list of all persons consulted is contained in Annex 1. The report was prepared by UNIDO's Regional and Country Studies Branch in co-operation with Prof. Jacques de Bandt, as consultant.

1/ Viet Nam's Industrial Development - An Assessment, UNIDO, PPD/R.28, 24 August 1989.

I. AN OVERVIEW

The textile and clothing industry is Viet Nam's strongest industrial branch, contributing roughly 15 per cent to the value of industrial production in 1987. Together with the co-operatives and small firms it currently, according to official figures, includes some 4,600 firms with about 625,000 employees, with a strong emphasis on the textile industry. Yet, domestic sales of cloth are at present very low. Since Viet Nam will have a population of 80 million by the year 2000, domestic demand for products of this subsector is expected to increase significantly. Moreover, major export prospects seem to exist.

In terms of location, the textile and clothing industry is nearly equally divided between the north and south of the country with concentrations in Hanoi and Ho Chi Minh City. The third place is occupied by Nam Dinh, some 80 km south of Hanoi, and the fourth by Da Nang. All in all, about 70 per cent of both branches are concentrated in the first three cities and 10 per cent in Da Nang, leaving 20 per cent for the other cities and regions such as Hue and Haiphong.

Foreign trade

The textile and clothing industry is the country's largest foreign exchange earner. In 1989, its total exports are estimated to reach 193 million rubles-US $, most of the foreign exchange, however, being in the form of non-convertible rubles. The bulk (three-quarters) of exports of the subsector is clothing. Table 1 presents an overview of the subsector's international trade.

At present about 30 per cent of <u>clothing production</u> is for export, including in particular shirts, ladies wear, suits, jackets and coats as well as a growing amount of sportswear and children's clothing. In 1988, the share of exports to socialist countries was 95 per cent, but it is estimated that in 1989, the share declined to 90 per cent. Contracts from the various socialist countries are fairly evenly divided among the individual factories so that per firm, as a rule, about three CMEA states appear as main customers. In the exports to market economy countries in 1989, Canada and FRG had the largest share followed by Singapore, Hong Kong, Taiwan Province of China, the Philippines, Thailand, France, Sweden, Nigeria, Saudi Arabia, Australia, and Republic of Korea (in that order). On the whole, exports to developed market countries face considerable quota problems. This is expected to be an increasingly difficult constraint.

In 1988, total exports of <u>textile industry</u> amounted to some 33 million rubles/US$ and the projected 1989 figure is 48 million rubles/US$. These exports include some 7,000-8,000 tons of yarn, some 20 million metres of fabric and about 2,000 tons of various woven material, such as carpets, knitwear (3 million metres) and towels. Exports are almost exclusively directed to the socialist countries - primarily the Soviet Union - and only a small part is for market economy countries. These are Japan, Canada and Hong Kong and - lately also - the Republic of Korea and Taiwan Province.

Table 1. <u>Exports and imports of textile and clothing products, 1980-88 and projected for 1989</u>

	EXPORTS			IMPORTS		
	Total value of textile & clothing products (million Rubels/US $)	Clothing products only (million Rubels/US $)	Yarn (cotton and peco) (tonnes)	Raw cotton (1000 tonnes)	Cotton yarn (million metres)	Fabrics (mainly cotton) (1000 tonnes)
1980	52	44	5,300	41	n.a.	56
1981	47	39	2,961	n.a.	n.a.	n.a.
1982	62	52	4,887	n.a.	n.a.	n.a.
1983	76	66	5,028	50	4	11
1984	85	74	6,800	38	2	29
1985	93	81	6,300	50	3	20
1986	93	74	4,900	54	7	27
1987	91	60	6,200	64	9	34
1988	132	99	7,300	n.a.	n.a.	n.a.
1989(projected)	193	145	8,300	n.a.	n.a.	n.a.

<u>Source</u>: General Department of Statistics, Hanoi.

For instance, 200 tons of towels worth $800,000 were exported to Japan as part of a barter deal - as payment for machine imports. The 1989 figures indicate that these exports will be increased to 400 tons worth $1.6 million. Negotiations are in progress with Japan for further increases up to 2,000 tons per year. Also Malaysia has shown interest in such trade.

On the import side, large supplies of cotton from the Soviet Union stand in the foreground, with an amount of 49,000 tons worth 68 million rubles in 1985 (the most recent year with complete statistics). In 1987, the quantity had reached 65,000 tons. In addition, in 1985 there were imports of 2,480 tons of cotton yarn worth 7.1 million rubles and 4,410 tons of artificial fibre worth 7.1 million rubles.

Imports of synthetic fibre come mainly from Japan (and, indirectly, from the USA) and to a lesser extent from FRG and Switzerland. The value of these imports stood at $2.5 million in 1988 and 1989. Of the socialist countries, Poland was the most important supplier. In recent years, 4 million rubles worth of such inputs were imported from CMEA countries.

In 1989, textile machinery imports amounted to about $6 million. India, Japan, Republic of Korea and Taiwan Province of China are the main suppliers. Many large firms in Viet Nam produce their own spare parts and also the two large technical centres of the Union of Textile Enterprises have certain production. About $1.8 million is, however, spent on imports of spare parts.

A major problem which Viet Nam faces in its current exports of textile and clothing products is the fact that most export earnings are obtained from centrally planned economy countries in the form of non-convertible currency. Quota restrictions on the other hand limit exports to developed market economies.

Employment and wages

Employment in the textile and clothing industry is officially recorded to amount to some 625,000 people. There are reasons to believe that this figure is far below the actual employment in this industrial subsector, since presumably, a significant number of people is engaged - but not statistically registered - in small-scale clothing production. For the sake of preparing a detailed filière and applying it for the formulation of a development strategy for this subsector, much more accurate data would be required on the employment size and structure. Also, the large employment in the raw material production and in directly related distributional function of the final goods would need to be taken into account for the filière analysis.

In general it can be assumed that total direct and indirect labour in the entire textile and clothing subsector in Viet Nam is very sizeable and that it is bound to further increase as the subsector is given the proper policy framework to expand. The subsector is expected to grow significantly in terms of employment, output and foreign exchange earnings.

Also in comparison with some other countries, the employment figures of the textile and clothing industry in Viet Nam are large (see table 2).

Table 2:   Employment in Textile and Clothing Industry

Country	Year	Textiles (a)	Clothing (b)	Total (a+b)
Afghanistan[a]	1983	10,176	n.a.	10,176
Bangladesh[a]	1984	293,000	9,500	302,500
Hong Kong[b]	1987	122,552	258,484	381,056
India[c]	1986	1,610,000	170,000	1,780,000
Indonesia[a]	1986	307,800	65,300	373,100
Republic of Korea[d]	1986	402,400	266,700	669,100
Malaysia[a]	1986	26,900	34,100	61,000
Philippines[a]	1986	70,600	91,800	162,400
Singapore[a]	1987	2,900	27,430	30,300
Sri Lanka[d]	1986	40,920	34,750	75,670
Thailand[a]	1984	279,800	149,300	429,100
Viet Nam	1987	495,000	130,000	625,000

a/   UN, Industrial Statistics Yearbook 1987, New York, X.1989, Vol.I.

b/   Census and Statistics Department, Hong Kong Annual Digest of Statistics, 1988 Edition, Hong Kong, XI.1988

c/   Labour Bureau, Ministry of Labour, Pocket Book of Labour Statistics 1989, 10.II.1989.

d/   ILO, Yearbook of Labour Statistics 1988, Geneva, 1988.

Monthly wages actually paid in the textile and clothing industry are presently (July 1989) between 70,000 and 80,000 dong ($16-18), whereby wages in the textile industry are in general somewhat lower than in the clothing industry.[1]   Each year, the whole payroll fund of a firm is determined according to the presumed performance of the workforce. Of this fund, 15 per cent is retained for an insurance fund. Viet Nam has also a system of bonus awards as an incentive for effective work.

1/   This is contrary to what is the case in almost all other countries.

There is a 6-day work week and about 280 to 300 working days per year, the number differing from firm to firm. The working day is 8 hours with a break of half an hour.[1] There are often three shifts in the textile factories and two shifts in the clothing factories. Theoretically, employees can be fired at any time if they do not perform. In practice, however, not much recourse is made to firing. For dismissals in a state/private weaving mill in Saigon (51:49 capital share), one month's wages for each year of seniority must be paid out. Pensioners receive 70-80 per cent of wages. The pension is paid by the Peoples' Committee.

Taxes

The employees are hardly ever burdened with taxes. As a rule, companies pay profit and corporate tax. These are not uniformly set. Thus, in Ho Chi Minh City, the following taxes are levied on the state-run, local sector: taxes on machines (virtually a kind of instalment payment since the state makes them available to the firms); taxes on the firm's capital (virtually a kind of interest); and taxes on product sales (included 4 per cent tax gain). Performance targets from the state exist in so far as annual taxes are fixed in advance. Every firm is assessed individually, but the data are not generally available. The "8 March" firm, for example, pays 2 billion dong per year.

II. THE RAW MATERIAL BASIS

Table 3 gives an overview of the domestic production and foreign trade of the various raw materials of the textile and clothing subsector. The domestically produced raw materials cover cotton, silk, jute and sisal. The domestic raw material base is very limited and nearly all raw materials for the textile industry are imported. Only some 7-8 per cent of the cotton used is produced domestically and no local production exists of synthetics. With increased textile production, corresponding import increases will be necessary unless local production can be built up - primarily in cotton.

1.   Cotton

Viet Nam possesses some of the most favourable conditions for cotton growing in all Southeast Asia. In principle the land under cultivation could be expanded considerably so as to meet the large and growing demand.

It must, however, be taken into consideration that at present only 1,000 sq.m. of cultivatable land per person are available to meet the needs for both food and clothing. The tendency is that this amount of land will decrease so that the area available to cultivate textile raw materials will be even smaller. Research is undertaken on the resource base of cotton, silk and viscose.

1/   The working day in a private garment firm of 300-employees in Saigon is at the moment 10-12 hours; for financial reasons the workers choose to work so long. They work 26 days a month and 280 days a year.

In past years, land under cultivation was temporarily reduced but it has recently been increased again. In 1986, the area was only 6,800 hectare and in 1988, it was 14,000 hectare. In 1989, the entire area under cultivation will have reached 15,000 hectare, but spread in very small lots across the country.

Three state-owned firms are responsible for about 1,000 hectare of the cotton growing area. The rest is divided between co-operatives (about 70 per cent) and small farmers (30 per cent). The major increases in cultivated land is attributable to the co-operatives and small farmers. The state-owned firms attain higher yields, though, (480 kg per hectare), compared to 310 kg for co-operatives and small farmers.[1] This is mainly due to the more extensive use of fertilizers and pesticides of the state-owned firms (a ratio of 100:70) and the large monocultures.

Over the years the seed has been improved. The length of fibre has been extended from a minimum of 27mm to 30-33mm,[2] the quality has also been improved and the fibre is more resistant to insects and climate.

The main potential for cultivation is in the north but recent findings indicate that the southeast could also be cultivated up to an altitude of 400 metres. On the basis of recent research, the Ministry of Agriculture expects that a yield of 800 kg per hectare in the south and 300 kg per hectare in the north can be achieved. With the help of additional capital it may be possible to reach a total area of about 30,000 hectare, 15,000 hectare each in the north and in the south. The necessary capital per hectare as assessed by the Ministry of Agriculture is $100. In addition, however, the required machinery (cotton gins and cotton presses for 100-200 kg bales) is lacking. The value of these machines totals some $350,000.

2. Silk

Total production of raw silk is about 125 tons per year. The production of mulberry leaves is 50-60,000 tons. Silk has a long tradition in Viet Nam, but to date production has been largely limited to the north. Relatively low prices in the last few years - in addition to unfavourable breeding conditions in the north - have led to a decline in the area of mulberry tree cultivation. In 1983, a maximum of 10,800 hectare was achieved. Since then the area has declined to a level of 6,000 hectare in 1988. Centres for silk are the provinces Thuan Hai and Lam Dong. On the whole the coastal areas offer good conditions everywhere for cultivation and breeding - up to an altitude of 1,000 metres. With the strong promotion of the silk industry envisioned in government plans, not only the needs of the textile industry are to be met, but also urgently needed jobs are to be created.

1/ In Thailand the average yield per hectare in 1987 was 1,250 kg, in People's Republic of China 2,560 kg and in Egypt 2,470 kg.

2/ Egyptian cotton is between 35-38 mm.

Table 3. **Production, imports and exports of textile raw materials**

	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 plan	Growth 1980/87 % p.a.
PRODUCTION												
Cotton (seeds)												
output	1000 t	2	2	4	4	5	5	5	4			11
cultivated area	1000 ha	7	7	11	13	14	14	13	13			11
Hemp, ramie												
out put	t	100	100	100	100	100	100					
cultivated area	ha	200	200	100	300	200	100					
Jute												
output	1000 t	28	33	38	49	44	47	55	58			11
cultivated area	1000 ha	18	17	17	25	20	22	26	32			9
Mulberry leaves												
output	1000 t	75	66	80	76	72	56	57	54			-5
cultivated area	1000 ha	9	9	10	11	9	7	7	7			-5
Raw silk												
out put	t	136	111	-	-	116	124	126	122			-2
IMPORTS												
Coarse/grained	1000t	42	39	53	44	42	49	54	65	64	55	6
Cotton	Mill.ruble-$	32	44	65	56	56	68					16b/
Cotton yarn	t	1,790	1,160	880	890	3,440	2,480	4,520a/	3,160a/			9
	1000 ruble-$	7,123	3,256	3,518	2,191	10,809	7,134					0
Artificial fibre (viscose, polyester)	t		4,140	2,630	4,200	6,500	4,410					
	1000 ruble-$		4,561	4,131	4,928	8,666	6,049					

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Table 3. (cont'd)

	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 plan	Growth 1980/87 % p.a.
Acrylic wool (incl. some dom. prod.)	t							485	685	540	400	-6d/
Viscose fibre	t							200	-	350	200	0d/
Polyester fibre (incl. some dom. prod.)	t							3,800	1,850	3,340	1,600	25d/
Sheep wool	t							1,000	1,068	910	400	-26d/

EXPORTS

	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 plan	Growth 1980/87 % p.a.
Cotton fibre	t	3,400	1,790	1,870	2,310	2,440	2,300	4,300	6,800			10
	1000 ruble-$	5,424	3,670	4,126	5,000	5,455	5,285					-1b/
Mixture fibre (cotton/polyester)	t	1,890	1,170	3,080	2,210	3,480	4,030	800				12c/
	1000 ruble-$	4,109	2,630	8,276	6,112	9,805	11,754					23b/
Jute fibre	1000 t	4	1	4	6	15	10	12	11			16
	1000 ruble-$	1,060	270	1,120	1,460	5,410	4,520					34b/
Silk (silkworm)	t	7		34	71	22	-	31	42			29
	1000 ruble-$	154		302	425	287						

Source: State Planning Commission, calculations of the IFO Institute.

a/   Quantity of both cotton fibre and synthetic fibre;
b/   1980-1985
c/   1980-1986
d/   1986-1989

There are two basic differences between cultivation in the north and south. First, the yield of mulberry leaves is greater in the north with between 20-25 tons of leaves per hectare being harvested. In the south only an average 18 tons per hectare is attained.[1] The calculations assume that 1 ton of cocoons can be gained from 20 tons of leaves, and that this will yield 70 kg of raw silk.[2] Second, breeding conditions are better in the south. Here at continuously stable conditions for twelve months the white silk can be produced with long thread (up to 1,100 metres). In the north, there only nine months are available for cultivating the white type and the thread is shorter (about 800 metres). In the three hot months, only the type of yellow silk can breed which has a thread length of 350 to 400 metres.

The equipment in the silk industry is inadequate. Due to a lack of fine spooling machines (of which 2 machines of $600,000 each would be necessary), Viet Nam has only been able to achieve the quality level 2a. Otherwise the quality of white silk is comparable to that of China, Thailand and Japan. At present 1 kg of 2a quality earns $42 on the world market, the 4a quality attains $60, and quality 6a (produced in Japan and China) $85.

In assessing production, two aspects must be taken into consideration. Firstly, the producers give, in theory, all of the production (cocoons) to the state-owned exporting company. For this they receive (normally with contracts of 5 years, which are renewed annually) $3-11,100 dong in the south for 1 kg of white cocoons - an amount that is linked to the price of 18.5 kg of rice. In the north they receive $2 for 1 kg of white cocoons and $.50 for 1 kg of yellow cocoons. Often this data is used for production statistics, and this can lead to distortions, since in practice a considerable portion goes by way of private channels to spinners and weavers (often in the same family). These sell the product on the local markets for 10,000 dong per metre of raw silk (90 cm wide), whereas the retailers ask for between 11,000 and 22,000 dong (July 1989).

Because state purchasing authorities have lowered their prices in past years, many mulberry trees have been cut down. Plans now call for a rapid increase of the area under cultivation. Already in 1990 production is expected to be quadrupled. For the year 1995, production of silk is envisaged to be increased.[3] Obviously, replanting will not yield quick results. After replanting, the young trees only yield 5 tons per hectare in the first year, in the second year 8-10 tons, and only in the third year the full yield of 18-20 tons is attained.

1/ The figures are contradictory, however, in agriculture yields of 20 tons of mulberry leaves per hectare are reported; the Statistical Yearbook - which is probably more exact - refers to 8 tons per hectare.

2/ Here, too, the figure listed of 70 kg silk per hectare is probably unrealistic. 30 kg per hectare would seem to be more realistic.

3/ An expansion to 20,000 hectare land under cultivation for mulberry trees by the year 2000 is no doubt possible; enlarging this area to 100,000 hectare seems unrealistic. Accordingly, forecasts of 1,000 tons per year by 2000 must be revised. 500 tons would be respectable enough. In the last few years, the aim was to reach 200 tons a year. This was, however, never achieved, since the farmers were given too little incentives.

3.   Tapioca

Negotiations are in progress between Japan and the Union of Textile Enterprises over a joint venture for the production of white silk from tapioca. Thailand already exports in this sector. The project involves a capital volume of $10-15 million. The shares will evidently be divided fifty-fifty between Japan and Viet Nam.

In the centre of Viet Nam (Binh-Dinh, Thuan Hai) and in the south (Phu Khanh), a total of 600,000 hectare is to be made available for this project. 35 workers would be needed per hectare to harvest 1.5 to 2 tons of "white powder". The price for this product is about half of that for rice. In the first year 1,000 tons of this "silk" are expected and full production would yield 7,000-8,000 tons. Viet Nam lacks, however, the required equipment especially the drying machines. The final product is intended to be blankets, which have retail prices of $200-300. So far the precise extent of processing in Viet Nam has not been decided on.

4.   Viscose

In the north of the country, two types of trees (Stearak wood and Bo de go mo) could be used as a source material for production of cellulose viscose. Laboratory tests and trial runs in the Soviet Union in 1979 with 8 tons have apparently confirmed that viscose produced in this way meets international standards and would be feasible to process. A calculation based on 1979 figures would mean initial investment costs of 300 million rubles at present exchange rates. With a growing surface of 120,000 hectare (according to the Department of Chemistry's figures), 30,000 tons per year could be produced. However, without proper financing - which at present does not seem possible to attain - a realization of this plan may be possible only after the year 2000.

The south would as well have a good starting position for viscose production in the form of "pine wood" (alleged potential 7 million cubic metres on a growing surface of 100,000 hectare). One plan envisages using two thirds of the cellulose gained in this manner for paper and one third for viscose. 10,000 cubic metre per year of pine would be available. Three important chemicals that are necessary for the production of viscose are either available (sulphuric acid) or are planned for production in the south (caustic soda and sulfuridephenol). Plans exist to set up a joint venture in 1995 with India and the Soviet Union, with production scheduled to begin after the year 2000. The projected amount of viscose production is 7,000 tons per year.

5.   Polyester

The exploration of gas and oil resources in Viet Nam have stimulated the discussion on an eventual production of synthetic fibres. There are, however, no concrete prospects for synthetic fibres before the year 2000. A refinery may be in operation by 1995. In 1998 also a petrochemical complex is apparently scheduled to begin production with a yearly production of 35,000 tons polyethylene, 15,000 tons polypropylene, and 20,000 tons sulphone. From this, among other things, 120,000 tons of synthetic soap and bleaching agents are to be produced. Even if this plan is realized, however, no polyester will be manufactured before the year 2000 when the capacity of the refinery would be expanded to 6 million tons.

In this context, contacts with Japan were apparently established already
in early 1980s for supplies to VIet Nam of 11,000 tons of polyester per year
starting in 1995. A factory to produce polyester fibres based on this input
would cost around $60 million (based on estimates from the early 1980s). Also
with the Taiwan Province, initial contacts have been made regarding a project
for polyester production.

For the production of vinyl and polyacrylnitrile some of the necessary
raw materials such as coal and limestone are apparently available. Acetylene
and carbide could likewise be produced. Plans exist with Korea(D.R.), for a
$55 million project that would produce 20,000 tons of vinyl starting in 1995.
A project is also being discussed with Poland for the production of 8,000 tons
of polyacrylnitrile per year. The important base materials such as methanol,
formalin and acetamide are, however, not available.

The option is thus whether to produce both synthetic fibres and the
necessary base materials, in connection with a joint venture (after the year
2000) or of importing the chemical raw materials and producing only the
fibres. The latter alternative could be implemented already before the year
2000. Obviously the choice of the options will be an essential part of the
filière based strategy.

In conclusion, the general situation with regard to raw materials can be
characterized as follows: low domestic production as input to textile
production; low or medium quality of cotton and silk; increasing supply of
ramie and jute; insufficient research on alternative raw materials or on
further development of existing materials including dyeing; high dependency on
imports, especially from the SU (cotton of low quality). Special problems are
the lack of information on the economic prospects for the utilization of the
domestic resources; bottlenecks in the development of cotton and silk and lack
of information on international research in the field of raw materials.
Excellent conditions exist for growing cotton possibilities for (increased)
production of silk, viscose, polyester and chemical textiles from own
resources.

On the basis of these findings, the following suggestions can be put
forward for consideration:

-    Preparation of a detailed study on the existing resources for
     textile materials and textile chemicals; prospects for cotton and
     silk growing

-    Research on the elimination of chemicals and pesticides as much as
     possible in cotton growing;

-    Research on possibilities for production of viscose from special
     wood, rice straw, sugar cane etc.;

-    Research on the possibilities of using ramie and other materials
     such as from coconut-tree, rubber, feathers and reptile and fish
     leather;

-    Investment in cotton gins and cotton pressing machines to better use
     the existing production of cotton;

-    Investment in spooling and drying machines for silk production.

III. THE TEXTILE INDUSTRY

The textile industry, is -- after the food industry -- the strongest single branch of the economy, accounting for 13.1 per cent of gross output in 1987 (see table 4). The prominent position of the state is shown by the 118 large state-owned firms which employed 110,000 persons in 1987 at the central and local levels. In addition there are 2,822 co-operatives and smaller firms which employ 385,500 persons. As table 5 shows, the majority of textile factories employ less than 500 workers.

In the last decade the Vietnamese textile industry experienced an uneven development. Whereas in 1978/79 about 38,000 tons of yarn and 320 million metres of material were produced (see table 6), it had fallen to only 22,000 tons of yarn and 200 million metres of material in 1980. In 1988 production reached 62,000 tons of yarn and 420 million metres of material.

Nearly all machines are older than 10 years (see table 7); only the spinning mills, which are almost all run by the state, and the weakly developed knitwear factories show some degree of modernization. The spinning mills have a potential capacity of 80,000 tons per year. Of the 868,000 spindles (392,000 in the south), 40 per cent are of a recent date (up to 20 years old), 30 per cent are between 20 and 30 years, and 30 per cent are older than 30 years. In the weaving sector, capacity utilization is at 450 million metres per year and 80 per cent of the machines are older than 20 years. A total of 11,000 shuttle looms are in operation and only 120 shuttleless automats (all in Ho Chi Minh City) and 8 open-end rotors are installed. In the dyeing and printing works the capacity stands at 400 million metres per year and 90 per cent of the machines are older than 20 years. The knitwear factories have a capacity of 2,000 tons or 20 million pieces per year with more than 1,000 machines (900 circular knitting machines and 100 flat knitting machines; of these 50 per cent are more recent than 10 years). 50 per cent of knitting production comes from the co-operatives.

In addition, the Viet Nam Union of Textile Enterprises covers 34 large and smaller firms with totally 60,000 workers. Together, with a large number of small firms at the local level, the Union has about 20,000 looms, many of which are handlooms, and 860,000 spindles. Six Union factories are purely spinning mills and 35 are combined spinning/weaving mills. Subdivisions in which about 1,000 people are employed are the foreign-trade company Textimex, the Textile Research Centre and two technical centres for repairs and spare parts (700 tons per year) as well as certain machinery (e.g. polyester weaving machines).

Plans have been formulated to modernize the spinning mills, the dyeing plants and the knitwear factories. It is also envisaged to better target the markets, gather more information on prices and raw materials, and improve procurement. The Union is planning to establish offices in Japan, the Republic of Korea, Taiwan (Province of China) and Malaysia as well as in India and FRG.

Table 4: Official data of the textile industry, 1980-1987

	Unit	1980	1985	1986	1987	Growth 1980/87 % p.a.
Value of production (fixed prices 1982)						
State sector	Million dong	3,632	6,314	6,517	6,893	9.6
Local sector (incl. handicraft)	Million dong	4,559	8,192	8,529	9,692	11.4
Only handicraft	Million dong	2,899	5,220	5,843	6,253	11.6
Total	Million dong	8,191	14,506	15,046	16,585	10.6
Share of total industrial production value						
Total	Per cent	12.2	13.8	13,5	13.1	
Only handicraft	Per cent	10.9	11.4	12.0	11.6	
Number of state enterprises						
Central state sector	Number	42	29	30	29	
Local sector	Number	123	84	86	89	
Total	Number	166	113	116	118	
Number of co-operation and smaller enterprises/ handicraft	Number				2,822	

Employment in the textile industry, 1980-1987

	Unit	1980	1985	1986	1987	Growth 1980/87 % p.a.
Industrial workforce						
Central state sector	Number	48,600	61,000	63,600	63,600	3.9
Local sector	Number	31,400	41,300	41,100	46,800	5.9
Total State	Number	80,000	103,200	104,600	110,100	4.7
Management workforce whereof:	Number	10,000	14,300	13,500	12,000	3.1
Skilled workforce of handicraft	Number		374,600	341,400	383,500	

Source: Statistical Yearbook of Viet Nam 1987; Calculations of the
           IFO-Institute.

Table 5:   The scale of textile factories
(in number of workforce)
(statistical figures of 1985)

	Textile factories		Central factories (Number)	Local factories (Number)
	Number	Per cent		
Under 200 workers	26	23	2	24
201-500 workers	38	34	4	34
501-1000 workers	28	25	10	18
1001-2000 workers	13	11	6	7
2001-3000 workers	3	3	2	1
more than 3000 workers	5	4	5	-
Total	113	100	29	84

Source: State Planning Commission; Calculations of the IFO Institute.

Table 6:   Production of some selected products in the textile industry

	Fibre (total) (1000 tons)	Silk (silkworm) (tons)	Finished silk cloth (million)
1980	29.3	136	179.2
1981	31.0	111	167
1982	35.8	-	233.6
1983	44.8	-	306.5
1984	52.7	116	364.5
1985	51.3	124	374
1986	52.4	126	357.3
1987	56.7	122	361.4
Growth 1980/87 % p.a.	9.9	-1.5	10.5

Source: State Planning Commission; Calculations of the IFO Institute.

More and more textile companies are setting up their own production lines for production of clothing. This is motivated, on the one hand, by the desire to utilize synergy effects of the company resources, and on the other hand, by the relatively low investment costs in clothing as compared to the production of textiles. Thus the "8 March" Textile Factory in Hanoi will by the end of 1989 already employ 300 people in clothing production. Likewise in a large

Nam Dinh textile combine, two new production lines for hand towels, working clothes and shirts will be set up with the help of a large Indian firm (Mafatlan), from which new spinning equipment worth Rs.80 million has been ordered.

In the modernization and adjustment of the textile industry to the international market, an important role is expected to be played by joint ventures with foreign companies. The following joint venture projects have been implemented or are in preparation: in Ho Chi Minh City a British joint venture is in operation for the production of sewing thread ($4 million, UK share of 75 per cent, 25 per cent for Viet Nam, 100 employees). In 1989 a joint venture was signed with a Malay an company for the production of jeans including a spinning mill and (in phase two) a weaving mill to be set up in Ho Chi Minh City. The capital amounts to $7 million and 500 people will be employed initially. The Malaysian share is 75 per cent. Negotiations are in progress with a company from the Republic of Korea for a $12 million weaving mill for nylon taffeta. The Korean share will be 75 per cent. Talks are in progress with a $10-15 million Japanese company for a joint venture for the production of "white silk" out of tapioca for blankets (shares divided fifty-fifty).[1] A joint venture project between the technical division of the Union and Republic of Korea for production of shuttle looms has not yet taken concrete form. Contacts exist for the development of a polyester factory near Ho Chi Minh City.

It is expected that because of its economic dynamism and its special locational advantages, such as the proximity to an international harbour, Ho Chi Minh City will play a major role in the future development of the Vietnamese textile industry.

Currently, the state-owned, local sector of the textile industry in Ho Chi Minh City, which is subordinated to the Industrial Services, has some 10,000 employees (all weaving mills, no spinning mills, and de facto no knitting factories). In the knitting sector a total of 100 knitting machines is in use. Most of the 5,000 machines in the state-owned textile industry in the city are more than 30 years old. Only the 40 shuttleless looms that were purchased in 1984 from Japan for an average price of $50,000 are new. In the last few years a total of $4 million has been spent on new machinery, though $50 million would be necessary to truly modernize the facilities. Production capacity in the Ho Chi Minh City stands at a total of 100 million metres per year; the actual utilization, however, reaches merely half of this (50 million metres per year). Complaints are directed at the poor quality which is blamed on the machines and on the poor quality of the cotton imported from the Soviet Union. Especially for thinner materials the quality defects are severe.

The co-operatives and the private firms in Ho Chi Minh's textile industry comprise 7,000 people. The 5,000 machines are mostly very old, wooden machines. In the knitting sector, 100 machines are in use, most of them new.

The major production facilities of the weaving industry are shown in table 8. Similarly, the main dying and printing capacities are listed in table 9. In both cases, Ho Chi Minh City dominates as location. The statal segment of the knitting industry is briefly outlined in table 10.

1/   Cf. here the section B. raw material basis - silk.

Table 7 : Age of machines

Name of the Factories	Spinning of cotton and mixture				Weaving of fabric				Total capacity mill. m² - p.a.	Dying and printing of fabric					
	total number of spindles	used for more than 20 years	used for more than 10 years	used for less than 10 years	total number of looms	used for more than 20 years	used for more than 10 years	used for less than 10 years		used for more than 20 years		used for more than 10 years		used for less than 10 years	
										Bleaching and dying	Printing	Bleaching and dying	Printing	Bleaching and dying	Printing
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Nam Dinh Text.Pact.	120000	20000	80000	20000	2200	1810	370	20	50	35	0	0	0	8	7
2. March 8th Text.Pact.	70000	52000	18000	0	1360	1360	0	0	42	27	7			2	6
3. Vinh Phu Text.Fact.	60000	0	60000	0	2000	.	2000	20	30	0	0	22	8	0	0
4. Viet Thang Text.Pact.	66000	66000	0	0	1500	1270	300	20	40	10	10	20	0	0	0
5. Thang Loi	129000	.	.	65000	1000	750	250	0	20	0	0	10	10	0	0
6. Phong Phu	20000	20000	0	0	480	400	70	20	20	20	0	0	0	0	0
7. Dong Nam	65000	30000		35000											
8. Khanh Hoi	10000	10000													
9. Nha Trang Spinning Pact.	100000	.		100000											
10. Hun Tho	20000	20000	0	0	500	400	0	100							
11. Hue Spinning Factory	51000	0	0	51000											
12. Vinh Spinning Pact.	53000	0	0	53000											
13. Hanoi Spinning Pact.	100000	0	0	100000											
14. Nam Dinh Silk Pct.					500	234	200	63	10	5	0	0	0	5	0
15. Ha Dong Text.&Dying					155	45	0	110	10	5	0	0	0	5	0
16. Dong A Text. Fact.					55	530	0		19	14	2	0	0	3	0
17. Phuoc Long Text.Pact.					728	508	200	20	30	20	0	10	0	0	0
18. Thanh Cong Text.Pact.					176	.	146	20	15	0	0	8	0	7	0
Knitting Factories:															
19. Dong Xuan					140	40	70	30							
20. Thanh Cong					20	0	0	20	1200 t	600	0	600 t	0	0	0
21. Dong Phuong					33	22	0	11							
22. Phuoc Long					40	30	0	10	800	.	0	200		600	0
Wool Spinning Fact.:															
23. Ha Dong									700 t p.a.			700 t p.a.			
24. Hai Phong									200 t p.a.	200	0	0	0	0	0
25. Bien Hoa															
26. Vinh Thinh															
27. Hanoi Thread Fact.									500 t p.a.						
28. Thu Binh Jute Fact.	7000 t p.a.		7000 t p.a.						3000 t p.a.			3000 t p.a.			
Blanket Weaving Fact.															
29. Binh Loi Ind.Fabr.Fact.					60	60	0	0							
30. Hanoi Ind.Fabr.Fact.					180	180	0	0							

Source: State Planning Commission

Table 8: **Weaving facilities**

Name of factories	Site	Designed number of machines	Actual number of machines	Designed capacity (mill.qm)	Actual production of 1988 (mill.qm)	Production/ capacity ratio (%)
March 8th Textile Factory	Hanoi	1,360	1,360	28.0	21,967	78
Vinh Phu Textile Factory	Vinh Phu	2,000	2,059	48.0	18,448	46
Nam Dinh Textile Factory	Nam Dinh	2,200	2,059	48.0	34,020	71
Hoa Tho Textile Factory	Da Nang	500	400	8.0	6,915	86
Nam Dinh Silk Factory	Nam Dinh	500	459	11.6	4,800	41
Industrial Fabrics Factory	Hanoi	100	70	3.2	1,132	35
Viet Thang Textile Factory	Ho Chi Minh City	1,500	1,300	35.0	22,054	63
Thang Loi Textile Factory	Ho Chi Minh City	1,000	800	18.5	11,816	64
Phong Phu Textile Factory	Ho Chi Minh City	480	465	10.0	7,595	76
Dong A Textile Factory	Ho Chi Minh City	550	504	10.0	3,449	34
Thanh Cong Textile Factory	Ho Chi Minh City	176+20	176+20	8.2	11,773	144
Phuoc Long Textile Factory	Ho Chi Minh City	728+40	711+40	24.0	16,904	70
Dong Phuong Textile Factory	Ho Chi Minh City	33 a/	33 a/	4.8	2,657	55
Production of sector (central)		11,094+9	9,954+93	249.3	163,490	66
Production of local sector b/				110,000		
Total production of fabrics					273,490	

Source: State Planning Commission; Calculations of the IFO Institute.

a/ Knitting machines.

b/ Including also statal enterprises under the direct control of towns, having about 3,000 weaving machines (looms) (50 per cent of this number have been used for more than 30 years, the remaining have been used for more than 20 years. The quantity of new machines is very small - about 20 machines). Number of looms in co-operative and private sector: about 20,000 looms, most of them are made from wood or are leg machines.

Table 9: __Facilities of printing and dying fabrics__

Name of factories	Site	Designed capacity (mill.qm)	Actual production of 1988 (mill.qm)	Production/ capacity ratio (%)
Nam Dinh Textile Factory	Nam Dinh Province	50	52,525	105
March 8th Textile Factory	Hanoi	42	27,459	65
Vinh Phu Textile Factory	Vinh Phu Province	50	23,061	46
Viet Thang Textile Factory	Ho Chi Minh City	40	30,568	76
Thang Loi Textile Factory	Ho Chi Minh City	30	14,771	49
Phong Phu Textile Factory	Ho Chi Minh City	20	11,494	57
Dong A Textile Factory	Ho Chi Minh City	16	4,312	27
Phuoc Long Textile Factory	Ho Chi Minh City	30	21,131	70
Nam Dinh Silk Factory	Nam Dinh City	10	9,302	93
Dong Phuong Textile Factory	Ho Chi Minh City	5	3,322	46
Ha Dong Dying Enterprise	Ha Dong Province	15	924	6
Thanh Cong Textile Factory	Ho Chi Minh City	10	14,667	147
Total		318	213,536	67

__Source__: State Planning Commission; Calculations of the IFO Institute.

Table 10. **Knitting factories in Viet Nam at present time (only statal sector)**

Name of factories	Production ability (tonnes p.a.)						Materials, products
	Round knitting			Longways knitting			
	Designed capacity	Actual production	Production/ capacity ratio (%)	Designed capacity	Actual production	Production/ capacity ratio (%)	
Dong Xuan knitting factory	3,000	2,000	67				) Knitted underwear of various
Thang Long	1,200	900	75				) kinds which is made of knitted
Thang Loi	700	450	64				) fabrics of 100 per cent cotton
Phu Xuan	200	200	100				) most of the products is for
Da Nang	200	200	100				) exporting
Thanh Cong	1,000	500	50				- Knitted fabrics and clothes made from Peco-, Petex fibres
Phuoc Long	500	500	100	1,000	500	50	- Knitted fabrics of various kinds made from Peco-, Petex and Patex fibres
Dong Phuong	1,000	500	50	600	300	50	- Kintted underwear made of 100 per cent cotton fibre and various kinds of fabrics, curtain and mosquito nets made from Petex and Patex
Hanoi October 10th				200	100	50	- Mosquito nets made from Patex and Patex
Xuan Dinh a/	200						- Stockings of various kinds made from Patex and cotton fibres
Hanoi Spinning a/ factory	250						- Knitted underwear made of 100 per cent cotton
Vinh, Nghe Tinh Spinning factory	750						- Knitted clothes and underwear made of 100 per cent cotton
Hanoi May 19th Textile factory	750						
Hong Gam Textile factory	2,000	1,000	50	1,000	500	50	- Various kinds of fabrics, knitted clothes made from Peco, Petex and Patex fibres
(in Ho Chi Minh City)							
Total actual	9,800	6,250	64	2,800	1,400	50	
Total potential	11,750						

Source: State Planning Commission.
a/ The Factories are under installation, production will be started in 1990.

In conclusion, the following findings emerge for the various segments of the textile industry:

The spinning industry is relatively modern; big state factories of central level dominate; only few factories on the local or private levels; high dependency of foreign raw material (cotton from SU, polyester, viscose and nylon from market economy countries); dominant domestic demand and only a small share of direct exports; certain exports of yarns. Special problems are only low quality of most raw materials; deficiency of some machinery – especially in dyeing and humidity plants as well as health and safety conditions; lack of knowledge of possible new blends; lack of information of domestic co-operatives and private (handicraft) spinning activities.

On the basis of these findings the following suggestions can be put forward for consideration:

- Research of the possibilities and implications of upgrading quality in production and the introduction of new blends on the basis of a study on trends in the material composition of fabrics in the world market;

- Studies on scope and approach for increasing productivity and competitiveness;

- Measures to improve the work and health conditions in the spinning sector;

- Research on diminishing the chemical impact in cotton spinning for the purpose of "healthy cloth";

- Improvement of production by better maintenance of the existing equipment;

- Improved quality control;

- Investment in humidity plants, dyeing facilities;

- Incentives for starting up specialized medium and small firms in the spinning sector;

- Improvement of marketing in the spinning sector (domestic and international);

- Improvement of fashion knowledge in the spinning sector (especially in the choice of blends and the colours for dyeing).

The weaving sector is characterized by mostly older machines; factories cover all levels (state central and local, co-operatives and private); only modest diversity prevails in terms of blends and patterns; production is mainly for the home market and – in a smaller part – for exports to socialist countries. Special problems are the lack of information on foreign market

trends and marketing as well as poor inputs from the raw material and dyeing side; insufficient maintenance of machines and few efforts to improve health and working conditions; lack of data on the co-operative and private sectors. Special advantages seem to be a relatively skilled workforce; and possibilities for quick response to changing requirements.

On the basis of these findings, the following suggestions are put forward for consideration:

-    Examination of possibilities for upgrading quality in production and the introduction of new blends with consequences for machines and skilled workforce;

-    Research on improving the work and health conditions in the weaving industry;

-    Improved marketing (domestic and international) and more efficient purchases of yarns, machines and spare parts;

-    Improvement of fashion awareness and response (especially in the choice of patterns and colours for dyeing).

The dying, printing and finishing level is generally characterized by very old machines and insufficient capabilities for meeting market demand. There are only a few specialized plants. Special problems are weak printing and finishing; practically no measures are used against pollution; poor working conditions; and lack of information on international standards. Opportunities for increased exports seem to exist through improvements of fabrics.

It is suggested that a detailed study be undertaken on required rehabilitation, modernization and expansion of this industrial activity.

The knitting industry is an underdeveloped branch. Its special problems are low quality of material; weak fashion design and marketing; large needs for machine investment; lack of information on international markets. The advantages seem to be a good workforce; and a long tradition of embroidery.

The following suggestions can be put forward for consideration:

-    Detailed subsector study to be carried out on development possibilities in the knitting sector at central, local, private and handicraft levels; in particular, the prospects for hosiery, underwear combined with embroidery;

-    Research of the possibilities to improve the processing (dyeing, printing, finishing) in the knitting sector;

-    Market research of future trends in the material composition of knitting on the world market;

-    Improvement of marketing;

- Feasibility studies on investment in new knitting and embroidery machines;

- Incentives for establishing specialized medium and small firms in the knitting sector;

- Creation of trademarks in the knitting sector for the best qualities;

- Development of national and international subcontracting.

IV. THE CLOTHING INDUSTRY

The clothing industry accounted for 2.3 per cent of gross industrial output in 1987 with the state dominating production. In the approximately 70 state-owned firms at the central and local levels over 38 thousand persons were employed (according to official statistics for 1987). As table 11 shows, most factories employ less than 500 workers. The 1,610 co-operatives and small firms employed about 39,500 persons that year.

Table 11: The scale of clothing factories
(in number of workforce)
(statistical figures of 1985)

	Central factories (Number)	Local factories (Number)	Total Clothing factories (Number)
Under 200 workers	1	35	36
3200-500 workers	2	12	14
501-1000 workers	4	2	6
.001-2000 workers	7	5	12
2001-3000 workers	–	–	–
more than 3000 workers	–	–	–
Total	14	54	68

Source: State Planning Commission; Calculations of the IFO Institute.

In the state-run sector, at the central level 8,000$^{*/}$ sewing machines are presently in operation (see table 14). Of these, 25 per cent are special machines for buttonholes, overlocks or other functions. 40 per cent of these machines are older than 10 years, 10 per cent older than 15 years, and only

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*/   This data needs to be verified.

about 20 per cent are new (i.e. under 10 years). 15 per cent of production is shirts, 30 per cent ladies' wear, 5 per cent trousers and the remaining 50 per cent is primarily suits, jackets and coats. For 1989 a total production of 40 million pieces is expected.

At the local level, a total of 54 (in 1985) state-owned firms exist which produce about 30 million pieces of clothing a year. In this sector an estimated 10,000[*] machines are in operation of which 20 per cent are special machines. 60 per cent of all machines are more than 10 years old and only 10 per cent can be considered new, i.e. they are under 10 years of age.

Total production capacity for both sectors is listed at 70 million pieces. For 1989 there are orders for 60 million pieces, 10 million short of full capacity. Of these 60 million pieces 20 million will be exported to the Soviet Union, 10 million to other socialist countries, and 1 million to market economy countries. In addition 20 million will be produced out of cotton imported from socialist countries to be exported back to these countries as finished products. Production growth in previous years is shown in table 12.

Table 12: Production of some selected products in the clothing industry

	Woven garment (million pcs.)	Towels (million pcs.)	Wool carpet (1000 qm)	Finished garment (million pcs.)
1980	13.8	24.8	375.8	69.2
1981	16.2	27.9	280	52.7
1982	16.8	32	269	55.3
1983	20.5	35	270	74.1
1984	21.7	46.2	302	70.7
1985	19.1	53.1	343	73.6
1986	20.1	57	476.1	102.3
1987	23.1	70.8	301.8	-3.1
Growth 1980/97 % p.a.	7.6	16.2	-3.1	4.8

Source: State Planning Commission; Calculations of the IFO Institute.

The state organization for the clothing industry (Union of Garment Factories) consists of a supra-regional, central level with 15 firms and a local level with 57 firms. In addition, there are 2 technical firms at the central level responsible for repairs and production of spare parts. They are situated in Hanoi and in Ho Chi Minh City.

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[*] This data needs to be verified.

The procurement of material and accessories for high quality production poses particular problems. In many cases, the modern machines and spare parts that would ensure high quality production are lacking; research on fashion trends and markets hardly exists.

In the local, state-run sector two joint ventures exist: one with Hong Kong in Vung Tan (Hong Kong 60 per cent, Viet Nam 40 per cent; 100-200 employees) and another with Singapore in Saigon (foreign share likewise 60 per cent; 100-200 employees). In addition there are about 10 to 20 joint ventures in the private sector, whereby it is difficult to distinguish between active and silent participation (Vietnamese abroad).

About 30 per cent of the clothing production is exported, mainly (95 per cent) to socialist countries. Endeavours will be made to export more to market economy countries so as to gain convertible currency earnings.

In conclusion the clothing industry is relatively developed but the production is low; on a medium to higher quality level only shirts are produced; there are big statal factories on the central and local level, many co-operatives and a growing number of private firms. Production is mostly for the domestic market and exports mainly for socialist countries on the basis of processing contracts. In the last year exports to capitalist countries increased; joint ventures are being established, also with companies from market economy countries; increasingly textile firms have their own garment lines. Special problems are the low quality; shortcomings in the accessory sector; poor quality of sportswear, bridal, evening dresses and folklore; lack of information on international standards. Special advantages seem to be a skilled low-cost workforce; high productivity and existing and prospective competitiveness.

On the basis of these findings, the following suggestions for the clothing industry are put forward for consideration:

- Detailed study to be carried out on prospects and constraints;

- Improved quality control;

- Improvement of marketing including creation of trademarks for the best qualities;

- Improvement of fashion knowledge (especially in the choice of patterns and materials);

- Development of international subcontracting;

- Improved ready-made tailoring and search for export possibilities;

- Incentives for establishing specialized medium and small firms.

Table 13: Official data of the clothing industry 1980-1987

	Unit	1980	1985	1986	1987	Growth 1980/87 % p.a.
Value of industrial production (fixed prices from 1982)						
State sector	Million dong	399	496	530	565	5.1
Local sector (incl. handicraft)	Million dong	1,387	1,703	1,983	2,200	6.8
Only handicraft	Million dong	1,019	1,280	1,415	1,491	5.6
Total	Million dong	1,786	2,199	2,513	2,765	6.4
Number of state enterprises						
Central state sector	Number	43[a]	13	13	15	
Local sector	Number	123[a]	54	57	57	
Total	Number	66[a]	67	70	72	
State home trading per capita fabric and silk 7.1		Million	2.1	3.8	3.6	3.4
Employment						
Industrial workforce						
Central state sector	Number	14,100	16,400	17,600	18,700	4.1
Local sector	Number	11,700	14,000	17,900	19,400	7.5
Total state	Number	25,800	30,400	35,500	38,100	5.7
Management workforce						
Central state sector	Number	1,700	2,300	2,400	2,200	3.8
Local sector	Number	1,700	1,800	2,400	2,100	3.1
Total state	Number	3,400	4,100	4,800	4,300	3.4
Skilled workforce of handicraft	Number		82,400	92,500	93,500	
Index of development (handicraft) 1980=100			126	139	146	

Source: Statistical Yearbook of Viet Nam 1987; Calculations of the IFO-Institute.

Table 14: Indicators of the clothing industry

	Unit	Belonging to the Union of of clothing enterprises	Belonging to the local management[a]	Total
Number of enterprises	number	15	81	96
Number of equipments & machines	pieces	8,250	16,000	24,250
Sewing machines	pieces	8,000	15,700	23,700
of which – electric machines	pieces	8,000	11,800	19,800
buttonholing machines	pieces	265		
Round cutting machines	pieces	48		
Hand cutting machines	pieces	107		
Pressing machines	pieces	45		
Value of equipments	1000 US$	12,000		
Number of employees	number	24,000	46,000	70,000
of which sewing workers (tailors)	number	17,000		
Production	mill.pcs	36	52	88
of which, for exporting	mill.pcs	33	20	53
value of exports (million)		148		
value of imports (million)		95		
Classification of sewing workers				
total	number	17,000		
high grade (skilled) workers	number	2,000		
technicians	number	110		
section managers	number	65		
training ability	number	600–800 p.a.		

Source: State Planning Commission.

a/   Excluding less than 2000 clothing co-operatives whose number of employees is about 100,000 men, about 60,000 sewing machines in various families.

V. FINAL DISTRIBUTION

The Vietnamese factories generally sell only to wholesalers. Recently, though, limited direct factory sales to local retailers have started. Retailers must, however, purchase rather large minimum quantities, for example 1,000 metres in the case of satin.[1]

For sales on the domestic market different price conditions prevail for wholesale firms and local, smaller purchasers.[2] On sales to local customers there is normally an extra charge of 5 per cent.

One large clothing factory in Ho Chi Minh City produces primarily for the domestic market. The company earned an average of 1,000 dong per produced shirt. The material is made available to the firm by wholesalers (The 1st Grade Company - operating on the national level; the 2nd Grade Company - operating on the provincial level; and the Company of Labour Protection - likewise on the provincial level). These wholesalers often carry out their transaction in US dollars. Other wholesalers active in the domestic distribution of textiles are SEAPRODEX, Tourism Company and Domestic Trade.

State-owned retail shops had, until recently, a monopoly. Now an ever-growing, differentiated strata of co-operatives and private firms with open boundaries to the informal sector has developed. Indeed, virtually every owner of a sewing machine[3] becomes a retailer.

The large groups such as Textimex and Confectimex play a leading role in foreign trade with textiles and machinery. Their share in the foreign trade of textiles and clothing is 90 per cent. Import orders must first be approved by the Foreign Trade Ministry, then either Textimex[4] or Confectimex take

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1/   100 per cent viscose; the price here is $1.20 per metre (0.75 wide).

2/   The distribution for a state/private weaving mill in 1988 amounted to 90 per cent for the various export/import organizations and 10 per cent for local interested parties; in 1989 the proportion was already at 80:20.

3/   The price for a - Chinese - sewing machine is at present 180,000 to 200,000 dong, which corresponds to over two months' wages for an industrial worker.

4/   Textimex has a total of 200 employees (120 in Hanoi and 80 in Ho Chi Minh City). Top management, which has remained unchanged for years, consists of a director, who is also head of the entire Union, and three deputies; the entire managerial staff consists of 24 persons, who over the past two years have all remained in their positions. Most of them understand English or Russian, 10 French, 3 to 4 German, 3 Chinese, and no one Japanese. In the marketing area 8 persons are active (3 in management; 5 assistants). Textimex concentrates on the socialist countries: 3/4 of the staff are involved with trade to these countries. As a comparison, it can be mentioned that 8 are involved with Japan, several with the Asiatic region and only one with the EC. There is also a certain specialization with regard to the raw materials purchases. Profits are about 1 per cent and the average salary 80,000 dong; in addition every three months there is a supplement of 40,000 dong. On the whole, Confectimex is economically stronger than Textimex.

over the actual handling which on average requires one month.[1]   In
addition, the permission of the municipal government is still necessary for
any promotional activity of state-owned and private firms on the local level.
The permission is quickly granted for imports from socialist countries, and
slower for imports from market economy countries.

Textimex is the most influential trading organization in the Union of
Textile Enterprises, which is exclusively responsible for imports and
exports. Their headquarters are in Hanoi with a branch office in Ho Chi Minh
City. Between the firms and the Union, import and export contracts are
concluded annually. These must be adhered to, otherwise sanctions are
issued. In the last few months, however, a change has taken place; now the
Union can conduct indicative planning, but cannot issue binding numbers. The
Chamber of Commerce is gaining more importance.

The trading organization Confectimex[2] belongs to the Union of Garment
Factories and has its headquarters in Hanoi and a branch in Ho Chi Minh City.

1/   For one private clothing firm in Ho Chi Minh City the export of sweaters
      and jeans is handled entirely by Inexim (the industrial export and import
      organization). Exports of wrist-watch straps made of snakeskin are
      carried out by the foreign trade organization ARTEX, which specializes in
      art and folklore. In the textile combine in Nam Dinh, the largest in the
      country with 17,000 employees, only 20 people are involved in the
      import/export department at present; last year there were merely 15. A
      co-operative for blouses, for example, established contacts with the
      Embassy of FRG, with German MPs as well as with women's organizations in
      the FRG. But an active Vietnamese outreach for contacts or initiative is
      lacking: "We continue to wait".

2/   The head of this powerful foreign trade organization in the clothing
      industry is at the same time also head of the Union. A total of 150
      people work for Confectimex (90 in the Hanoi headquarters and 60 in Ho
      Chi Minh City). Top management consists of four persons: a General
      Director and three deputies (here, only one position has been reassigned
      in the last four years). For the other 15 managerial positions only
      three have been newly appointed in the last two years. Most of the
      management understand Russian and English, even though they do not always
      speak it well; two-thirds speak French, one-third is somewhat familiar
      with German; Spanish or Portuguese is lacking completely; one or two know
      Chinese, but no one Japanese. Market research is carried out in a
      department of 10 (two heads - in Hanoi and Ho Chi Minh City - with three
      to four on the staff in each city); the sources of information are
      foreign diplomats, people on missions, and foreign customers. Nearly all
      Confectimex managers have been on short trips abroad, but no one longer
      than a year. In terms of regional distribution, about 100 deal with the
      socialist and 50 with the capitalist countries: of the latter, 30 with
      the EC, 15 with the Asian region (including Australia) and 5 with the
      rest of the world, especially with Canada and with a look to the USA.
      Confectimex hopes to establish business ties to the USA via future joint
      ventures. On average, an employee at Confectimex earns 200,000 to
      250,000 dong a month; to this about 50 per cent is added for
      compensation. From the export value, about 10 per cent remains at
      Confectimex; profits amount to 2 per cent.

Confectimex is under the Ministry of Light Industry and the Foreign Ministry (Ministry for Economic Co-operation). The former has the key position.

Since the last few months also individual firms can export directly, if two criteria are met: a lower limit of $2 million and "familiarity with the corresponding export market". There is a growing tendency for firms to join together in order to reach the threshold value of $2 million. Nevertheless, the Ministry for Economic Co-operation has the final say, and also the major trading companies are also involved in the decision-making.

Barter transactions have significant weight both for domestic and for foreign trade.[1] Basically, transactions are preferred where the machines can be paid for with the goods produced on them. But to date this approach has not had much success. Of all the important textile partners in the region (Japan, Republic of Korea, Taiwan Province of China), the Taiwanese have shown the most interest and greatest prospects.

In conclusion, it is evident that the distribution is mostly in the hands of big statal trading firms, with very few private companies; only recently some improvement of direct distribution activities by producers have been noticed. The efficiency of the whole sector is low. Special problems are the lack of information of markets and the actual marketing for the domestic and in particular the international markets; distortions in the competition prevail due to the dominant barter trade. The large domestic demand can, in the longer run, be a major growth factor. Overseas Vietnamese in important foreign markets could be used as an export marketing bridgehead.

The following suggestions are put forward for consideration:

–   Exploration of scope for building up (or participating in) special fairs in Viet Nam or abroad;

–   Improvement of domestic and international marketing;

–   Consideration of establishing an Institute for Marketing and Market Research;

–   Establishing centres for marketing research and distribution in selected countries;

–   Establishing a specialized textile bank to provide for quicker credits, and support to foreign trade, foreign investment and barter trade;

–   Improved contacts to the GATT;

–   Improve the conditions in the transport and communication sector.

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[1]   Recently the textile combine in Nam Dinh purchased from Japan a large printing machine for hand towels that was worth $350,000. This was paid for with hand towels worth $400,000.

VI. THE FILIERE

1. The principles

Analyses of the current industrial structure, of the rapidly growing domestic demand, of the resources and resource costs in international comparison and of the experience and recent trends in other South-East Asian countries clearly indicate that the textile and clothing industry in Viet Nam possesses significant growth prospects in the coming decades. The current domestic sales of cloth of 0.6 kg material per capita is extremely low in international comparison (China 2.6 kg and Republic of Korea 5.1 kg in 1986). The population increase anticipated for the year 2000, reaching a population of 80 million, and emerging opportunities in international markets point at a major demand increase. The need to boost domestic manufacturing value added and foreign exchange earnings as well as to absorb an increasing labour force indicate the requirement to build up the textile and clothing industry. This build-up should thus form an important part of an overall industrial strategy.

Whereas the country clearly is competitive in the final stages of garment and in parts of the textile production, major structural inefficiencies and constraints prevail. For the formulation of a strategy, it is obviously essential to assess these obstacles at each stage of the production chain and to identify the prospects for building up key economic linkages into efficient networks of production.

It is in this context that a filière approach may constitute a useful tool. Applying the filière approach entails a systematic economic assessment of horizontal and vertical linkages at each stage in the production chain and the formulation of specific measures by the various actors concerned. It is thus a tool to map out, evaluate and promote structural integration with the goal to exploit and build up competitive strength in a key segment of the manufacturing sector. The filière approach enables the identification of new and emerging prospects and constraints also in related industrial subsectors. An aggregation of such subsystems can then be undertaken, in which larger structural networks across several industrial subsectors and economic sectors can be built up. This then will serve as an important basis for industrial strategy formulation and for the identification of key investment opportunities.

The concept of "filière" is based on the fact that for all industrial production activities many different complementary functions and operations have to be performed by various actors.   In the vertical dimension the production process can be divided into different stages or operations, which are partly successive and partly parallel (when different components have to be assembled). Some of these operations can be integrated within the firm. Others are integrated between companies through the market.

The horizontal dimension of production activities reflects the fact that besides the direct materials production, many other functions have to be performed, which contribute to the production process and to value added. These functions are very diversified. Besides organization and management in general, they concern the (i) directly applied services such as training, research, finance, maintenance; (ii) accompanying services such as logistics, transport, insurance, accounting; and (iii) product-related services such as

design and market research.   These service functions are a precondition for
linking the strategic variables: product/quality/ cost/price.   Indeed, these
service functions are clearly playing an essential role for the
competitiveness of a production chain as a whole.

These functions are increasingly being supplied by separate, specialized
service firms. Their specialization ensures higher levels of competence. The
tendency is towards externalization of several functions and firms tend thus
to be less self-contained. Whereas small firms, because of their sheer size,
obviously cannot be self-sufficient in these services also larger firms tend
to externalize more and more of these functions and to become more dependent
on their immediate environment.

All these complementary functions and operations need to be linked
together in a coherent, organizational system. Within a productive process,
more and more functions are non-material and non-repetitive and have to be
supplied on time and according to the specific needs. These functions can
thus only be performed efficiently if they are consistent with each other.
Hence, the process of co-ordination and synchronization is crucial.

This means that an industrial subsector - in this case the textile and
clothing industries - cannot be seen and assessed simply as a set of
autonomous plants or firms which individually have to be efficient. The
entire system of a subsector needs to be designed according to the efficiency
requirements of the overall production system. In addition, the performance
of each element of the system - each plant or firm - has to be optimized.

If due to structural and organizational differences of the system, the
functional relations between actors are weak, or not synchronized, the
individual companies can themselves go a long way towards reducing
uncertainties and enhancing the subsectors' competitiveness through various
forms of co-operation between themselves. This could be done for instance by
exchanging information, joint formulation of product specifications and
quality standards, and joint approaches to solve technical, marketing,
training and other problems.

The companies all gain from the overall performance of the system. The
initiation of such possible convergence of interests could be made in the
framework of a filière strategy.

To build up a filière system the following steps need to be taken:

First, an assessment of the existing sub-system. This implies an
assessment of the existing capacities at each stage of the production
chain, and of the sub-system as a whole, including the quantitative and
qualitative aspects of linkages.

Second, an examination of the organization of the sub-system to identify
ways for improvement.

Third, the determination of strategies and priorities in order to build
on possible convergence of interest and co-operation of the actors
concerned. In this particular case three optional strategies will be
explored:

- an overall modernization strategy

- an all-export-oriented clothing strategy

- a comprehensive filière strategy, aiming at enlarging the raw
  material basis.

2. The existing subsystem in Viet Nam: an assessment

The assessment of the present textile and clothing sub-system should in
this case be seen as an attempt to organize currently available information in
accordance with the filière approach and in identifying the additional
information needed. Emphasis will be on the cotton industry (including
mixtures) and the other textile sub-filières will be only marginally touched
upon.

2.1 An assessment of exiting capacities and facilities

The available information on existing capacities is summarized below:

Existing facilities and capacities

Raw material:
Domestic base underdeveloped (area yields)
Imports from S.U. (1988: 65,000 t/68 million R)
Some export (jute, silk)
Imports of artificial and synthetic fibres (1985: 13.10
million R)
Large negative imbalance

Spinning:
Huge capacity, not totally utilized (1988:62,000 of a
total capacity of 80,000 t)
Age structure of machinery: 40 per cent 20 years, 30 per
cent >30 years; flow of exports 1985: 2,300 t/5.28 million
R.

Weaving:
Degree of capacity utilization: 66 per cent (1988)
Age structure: 20 per cent 20 years
Production: 1988: 273 million qm.

Drying/printing:
Capacity obsolete or underutilized
Age structure: 10 per cent 20 years
Production: 1988: 213.5 million qm

Knitting:
Capacity: underdeveloped (or not registered?)
State factories: 50 per cent
Total potential: 11.7 (000 t)
Age structure: 50 per cent 10 years

Clothing:
Production: 100 million pieces.
Age structure: 20 per cent 10 years
Large informal sector.

The following assessments can be made:

- The raw material base is weak: most of the material is imported.

- A large part of installed machines is quite old; the percentage of modern (10 years) machines in weaving and dyeing and printing is very low.

- Capacity utilization is insufficient (spinning: 3/4; weaving: 2/3; dyeing and printing: 2/3)

- Some exports of spinning and weaving products (partly on barter terms).

- Some vertical integration schemes exist: some (6) large cotton factories, some family-integrated silk chains.

- Knitting is, relatively speaking, quite underdeveloped but recent developments are positive.

- Large exports take place from the clothing industry.

- Important informal activities exist at all stages of production.

More information is needed on actual performance in terms of productivity and quality. There are indications that productivity levels are quite low. This issue should be analyzed in greater detail. Besides the fact that the machinery is generally quite old and that the number of indirect employees is known to be very high, the other possible reasons of low productivity are production and work organization, quality and continuity of supplies, as well as wages and workers' motivation. There are also indications that the product quality is generally poor and certainly not up to international standards. This may be partly due to the poor quality of the raw material. Deeper analyses are needed in any case.

2.2. Existing links

The objective of this section would be to construct the entire filière, showing the linkage of the various stages of the product flows.

Table 15 indicates the order of magnitude of the main flows for the cotton sub-filière (including mixtures). The overall presentation of the filière is well known and needs no further comments. It should be noted that some of the figures may not be entirely correct (those between brackets are only estimations) and further work will be necessary in order to check and supplement the figures.

Remarks

Some observations and indications for clarification need to be made on these data.

First, the table excludes "informal" flows, these should be assessed the same way and be added in order to get a comprehensive picture.

Second, the huge external dependency on textile fibres is apparent at the raw material level. But to this some other important imports (artificial and synthetic fibres and yarn, cotton yarn, maybe cloth) have to be added.

Third, the link between spinning and weaving is not clear: the production of cloth (in metres) seems to be quite high as compared with the availability of yarn.[1] The gap is still wider if one takes account of possible cotton yarn consumption in the knitting sector.

Fourth, it is at this stage not possible to fill the line for exports and imports of cloth and thus to know which volume is available. Here is an important data gap to be filled.

Fifth, no figures seem available for imports of knitwear and clothing.

Sixth, the production (+imports) of cloth appear to be very high, as compared with the production of clothing, unless a large proportion is exported. Further data and analyses are needed in this context.

Analysis

As the filière table shows, the big deficit is upstream and the big surplus is downstream. However, it is not exactly clear what the external balance is at the level of the textile industry as a whole.

Some unsolved analytical problems remain. The quantitative flows should necessarily match, with due account of production losses and technical coefficients. However, on the basis of the available data it is not possible to fully determine the flows in value terms. The value of production of the textile industry is much higher (nearly 7 times as large) than that of the clothing industry, but exports are seemingly much higher for the clothing industry. These exports therefore seem to include cloth. More information is needed on both the value of production of textiles used for the clothing production and the proportion of cloth which is imported for producing clothing for exports. One major issue is how competitive the actual production is of clothing products per se, and to what extent this competitiveness is based on the input of textile products.

Contrary to what is the case in most other developing countries, data do not show major exports of knitting products. It should be examined if production figures are underestimated or if export figures are included in the overall data on garment exports. The apparent relative underdevelopment of knitting would in any case need deeper analysis.

In contrast with most other countries, the (apparent) consumption of artificial and synthetic fibres is relatively low. If account is taken of the reexported part of that consumption (the complete figures are not available), the domestic consumption of those fibres would seem to be still lower. The question arises for what reasons cotton is de facto preferred, although it is only poorly supplied domestically.

1/   The question is if possibly the width of cloth is on the average only
      60 cm.

Table 15: Existing flows and links (cotton)[*]

Imports	Domestic production	Exports		Balance
(±8 million $)	**Textile machinery and parts** Production: some parts Available: low level of investment			Balance (-8.10 million $)
	Raw cotton Production: 1988: 5.3 million tonnes			
1987: 65,000 tonnes/ 68 million R	Available: (±70,000 tonnes) + Artificial fibre 1985: 4,400 tonnes			-65,000 tonnes -68 million R
Artificial fibre 1985: 4,400 t/6 million R				- 4,400 tonnes - 6 million R
1985: 2,500 tonnes/ 71,000 R 1987: 3,200 tonnes	**Spinning** Production: 1988: 62,000 tonnes Available: (±60,000 tonnes)	16.6 billion dong (1987) (1982 prices)	Cotton 1987: 6,000 t Mixture 1985: 4,000 t/ 11.8 million R Value: 1988: 33.1 million t	
1987: 34,000 tonnes	**Weaving** Production: 450.1 million metres 1988: 273.5 million qm Available: ?			
	Dying printing Production: 1988: 213,000 metres			
	Knitting Production (capacity: 12,000 tonnes)	..		
	Clothing Production: 1988: 96.1 million pcs	2.8 billion dong (1987) (1982 prices)	1988: 99 million R (1989: 145 million R)	

[*]/ This table includes data which need to be confirmed.

The external balances should be recalculated on the basis of possibly adapted world market prices. The hypothesis is that the terms of trade of (imported) raw cotton versus (exported) textile and clothing products would be more favourable for Viet Nam. This hypothesis would have to be tested on the basis of precise figures.

The table indicates the particular development pattern of the Vietnamese textile industry. It is totally dependent on imported raw material, and has a major export at the clothing level (apparently not yet in the knitting segment of the clothing industry). Thus, the Vietnamese textile industry has been developed from the first stages of production downwards. While this was the traditional way in the European countries which depended on imported raw cotton (and jute, wool, hemp), this is usually not the pattern by which the textile industries developed in the developing countries.

Different patterns can obviously be followed. Most countries can quite easily build up a clothing industry on the basis of imported materials (usually cloth) and simple traditional skills. From there two paths are usually followed. If the raw material (cotton) base can be developed, there are good reasons for gradually building up the whole chain of operations, while part of the production could be sold at intermediate stages. The other path starts from the currently most competitive end of the chain and attempts to move upstream, stage by stage, thus increasing the domestic value added. This development of production and services step-by-step, depends in its pace on the effective mastering of the particular requirements at each level. The upstream movement can finally proceed to the level of production of natural or man-made fibres or even of textile machinery.

In the Vietnamese case the development of the textile sub-system would need to satisfy one or both of the following conditions: (i) to develop a (strong) raw material base and/or (ii) to acquire a high degree of competitiveness at the intermediate textile production stages. If these conditions cannot be satisfied, a fundamental revision of the textile policy would be required.

This quantitative analysis of existing linkages between production stages needs to be supplemented by two considerations. First, the whole set of relations with other complementary actors needs to be examined. In the framework of the present study the necessary information is, however, lacking and only an indication can be given of the problems which would need to be thoroughly examined:

- the regulatory aspects: the rules and procedures which regulate various actions and the decisions concerning investment, production and distribution;

- the relation with the public administration;

- the relation with financial institutions;

- the relation with connected activities such as training, research, transport, distribution, services;.

Second, the qualitative aspects of the textile filière need to be examined:

- Information: The functioning of a production system is to a large extent dependent on its internal and external information system. The information may be of a technical, industrial or commercial type and is crucial for taking the right decisions and actions. The performance of the filière thus is conditioned by the quality and dissemination of the information. The more changes to be carried out in the production system, the more information is required to enable decisions which are consistent with the existing conditions. For that purpose it is important to study the circulation of information: What kind of information is circulating through which channels among which actors throughout the system?

- Prices: Price signals have obviously particular significance including the structure of relative prices and their evolution and adaptation procedures for decisions concerning production, allocation of resources, investments, etc. Since the price system transmits essential information on the market, biased prices may induce economically wrong or inconsistent decisions for the filière.

- Quality: Quality covers not only pure physical or material aspects. It is also an organizational issue. Beside the raw material quality also the care with which the raw material is handled and transformed, the degree of adaptation to the specific needs of the user and the evolution of the product are essential. Quality improvements depend, to a large extent, on how the actors transfer the necessary information and co-operate in finding the required solution.

From the standpoint of these three sets of requirements, it would seem that the Vietnamese textile system is inadequately organized. Obviously this assessment is, however, based on only partial indications. It remains an hypothesis, which should be tested on the basis of a careful examination of detailed data.

2.3 The organization of the filière or subsystem

The organizational dimension of the filière is the most crucial issue. The performance of the sub-system is largely dependent on the relations between the various actors. The architecture of the filière defines the division of complementary tasks and functions, including finance, maintenance, decisions, allocation of resources, information. The filière is furthermore determined by the set of rules, procedures, practices and routines governing the relations among the various actors. Thus, the rules need to define the following:

- What kind of information is to be transmitted and how?

- How are orders transmitted?

- How are payments made?

-    What are the rules for appraising conformity?

-    How is information about users transmitted?

-    What are the sanctions?

-    How are actions and behaviours made consistent?

-    How are modifications introduced?

-    What variables are left for decentralized decisions?

The functions and tasks to be performed for a product to be effectively designed, produced, delivered, sold or exported are divided into internal and external tasks. In each case it has to be decided if functions are better performed within or outside the firm, in order to capture possible gains from more division of labour and specialization.

As to internal tasks the question is how the production process is organized - both vertically (number of stages of production, operations or functions) and horizontally (diversification of production):

-    Who is taking what decision in the framework of what procedures?

-    What are the logistics between the various operations?

-    What is the work organization?

-    What is the division of tasks?

-    How are the workers to fulfil their tasks?

-    What are the relations of the workers to the end-product?

-    How is conformity controlled?

The external division of functions among autonomous firms mainly concerns the transfer of intermediate goods and services from one firm to another. This can be organized either on a purely quantitative (and qualitative) basis by some authority or on the basis of market relations, i.e. quantity/quality/price. The external relation is often seen as purely a technical issue of delivering the goods or services, as defined, according to given specifications and under given time and space. The required co-ordination of the complementary functions is thus supposed to be determined by the authority or through the market. In both cases, only limited efficiency is attained.

Efficient co-ordination implies, however, that correct information on the various dimensions of needs, operations, products, techniques, materials etc. is circulated within the filière. Thus, upstream producers have to know to what extent they should adapt to the needs of the users or consumers.

The systematic circulation of the relevant information is never automatic. In reality various barriers exist which tend to inhibit this circulation and thus limit the co-ordination. Admittedly, co-operation among units can emerge spontaneously, but this is seldom the case.

Hence, the filière has to be systematically organized in order to promote and increase the circulation of information and various types and degrees of co-operation. This can only be done on the basis of concerted action. The various actors who perform some function within the filière should be induced to take keen interest in the way the filière functions. The modalities and procedures of such concertation have to be designed to adjust the socio-political context and institutions. Such concerted approach for implementating the relevant organization of the filière or sub-system implies:

-   understanding what the filière actually is, how the filière is structured, what are the relations among the various actors within the sub-system. The objective is to understand both the existing structure of the filière and, compared to what the filière ought to be or could be, what is missing or deficient.

-   understanding the various dimensions of the relations between the operating units and the principles and modes of co-ordination.

-   understanding the common interests the participants share in the efficient functioning and development of the filière and the necessity and feasibility of co-ordinated, co-operative approaches.

The problem then is how to achieve all this. A strategic framework needs to be collectively decided for the filière in which a common voluntary approach is determined for mobilizing and organizing resources and efforts in order to attain specified goals and targets.

3.   Strategic approach

The prevailing production system in Viet Nam can certainly be better organized and would then show much better performance. The build-up of a more efficient system obviously needs a long time horizon, since such structural changes require time to apply and become effective. To this end strategic goals would need to be defined for the entire textile filière towards the organization of all activities which together constitute the textile system.

As a first step priority targets need to be selected in the framework of socio-economic objectives of industrialization. Some priority options can be listed as follows:

-   Employment: Industrial activity should increase employment. In the case of textiles, and in particular clothing, the number of jobs per unit of output is high although it may decrease over time as technological upgrading is taking place. The jobs are to a large extent low-skill jobs.

-   Industrial growth: The textile and clothing industry contains real opportunities for growth both because of demand - internally and externally - and because of rather easy access to equipment, technology and skills.

-   Wages and purchasing power: Being labour-intensive, textiles and clothing industries are likely to create large purchasing power, on the condition that wages are not pushed down for compensating low productivity and efficiency, as an attempt to withstand competition.

- <u>Exports and external balance</u>: Viet Nam has to develop competitive exports in order to pay for imports in other fields (equipment, high technology). Account has thereby to be taken of the fact that export increases in turn necessitate higher imports of machines and spare parts.

- <u>Regional distribution of activity</u>: Textile production and more so clothing production can to a significant degree be dispersed throughout the country, if transport requirements are fulfilled.

- <u>Development of agriculture</u>: Industrial outlets for cotton, jute and silk can be considered as a major stimulant for the development of agriculture (unless other agricultural production is given higher priority) while the development of those agricultural production can also stimulate industrial production (equipment and chemical products).

In a next step a strategy is selected from several alternatives. The formulation of such a strategy covers the determination of three elements: (i) goals; (ii) required resources; and (iii) the organizational mode for attaining the target with the resources as defined. These elements are obviously interrelated. The definition of a strategy is therefore an iterative process.

As an illustration of possible filière strategies, the following three options may be listed:

- A strategy of systematic modernization of existing capacities;

- An overall clothing and knitwear exports strategy;

- A strategy aiming at building up the raw material base towards self-sufficiency.

3.1 A modernization strategy

The upgrading and modernizing of the textile and clothing filière is based on the assumption that the external balance of the filière as a whole is positive. The objective is for the economy to gain more from the industrial transformation of raw material. The current level of competitiveness is determined by the plant and overall system productivity on the one hand and the low wages on the other. The aim is thus to increase the level of productivity and to initiate a continuous process of productivity growth.

It is clear from the data available that the machines used in the textile and clothing industry are quite old and that the degree of utilization of the capacities is not very high (between 2/3 and 3/4). The equipment is not in good working condition and there are indications that the state of the equipment is to a large extent responsible for quality defaults. It is reported that essential spare parts are lacking, that some of the domestically produced spare parts are not of satisfactory quality, and that enterprises lack the finance for buying the necessary modern equipment.

The strategy would consist in systematically modernizing the various parts of the textile system. The strategy implementation schedule needs then to be carefully defined in order to determine the successive phases of modernization, and launch a dynamic process of productivity growth.

The economic choices should thereby be considered, such as the balance between increased external expenses for equipment and the resulting increased external competitiveness. As regards effects on employment the balance between increased labour productivity and employment growth needs to be calculated. Indeed, such calculation should be done with respect to each of the socio-economic objectives individually and also in their entirety taking account of their relative weights.

The choice of technology obviously is another important issue. There may be good reasons - in terms of prices, maintenance, skills etc. - for not installing the most sophisticated equipment. However, the quality requirements and the time perspective of the strategy may warrant the acquisition of modern equipment in key areas.

One way would be to begin modernization at the weaving level together with an expansion of knitting. This would ensure that the necessary quality standards can be met at least for the clothing sector's exports.

In view of its potential dynamics, modernization may be pursued also in the small enterprise/handicraft sector. Subcontracting arrangements may be a suitable vehicle to achieve this.

The filière strategy means that for each measure taken on any one stage of the production chain, the accumulating effect for the entire textile sub-system as a whole will be both a principle objective and a basis for the assessment. Thus, the action for improving performance of the weaving sector will be largely dependent on the extent at which the co-operative relations - (information, quality control, standards, type of products, marketing) - are building up between the weaving and clothing sectors.

Summary indications for modernization strategy

Objective: Competitiveness through productivity growth.

Basic constraint: Financing for increased imports of equipment

Process of modernization: Successive stages, e.g. priority at
                                    weaving-knitting stages.

Choices;   Production techniques; time horizon and
                                    calendar; types of products

Consistency problems: Quantitative and qualitative supply of
                                    yarn; work organization; outlets (garments
                                    exports); internal and external
                                    organization; quality standards.

3.2 An all clothing and knitwear export strategy

This strategy would consist of expanding the existing export surplus at the clothing stage. Like many other developing countries Viet Nam seems to have a clear competitive advantage in the clothing industry, mainly because of low wages. Viet Nam's raw material base is, however, lacking and the competitiveness of the textile industry is less evident, even if exports of textile products occur.

Since clothing is the most labour-intensive segment of the whole filière, required investments are minimal. Indeed, whereas the clothing industry seem to remain labour-intensive, the textile industry is more and more affected by the new technologies. Viet Nam's comparative advantages in clothing may thus remain evident whereas they may disappear over time in textiles. A strategy giving priority to the development of exports of garments and knitwear may therefore seem most feasible. There are, however, both limits and major preconditions to pursuing this strategy.

The main limit are the difficulties and uncertainties in the international market. Due to the over-supply in and limited access to the markets, competition is very fierce, thus aggravating the pressure on price-quality relations at the lower end of the market. Due to the low potentials for productivity increases, the main competitive strength lies in the near future in the low wages. In order to improve the terms of trade and increase value added, production would have to move to higher quality products.

Important improvements need to be made in terms of quality and marketing. The industry must be able to design and quickly adapt its products to the changes in the market and be able to sell the products through access to the various channels of distribution in the major markets.

Summary indications for clothing export strategy

Objective:	Export earnings Employment
Basic constraint:	Marketing
Development:	Clothing and knitting, end-products, independently of upstream activities
Choices:	Products/markets
Consistency problems:	Relation to the market quality standards
Requirements:	Marketing, design, productivity and at the same time increasing sales staff.

3.3 A strategy aiming at increasing the raw material base

This strategy would aim at increasing self-sufficiency in the textile
filière. As has been noted, only a small proportion of cotton and a certain -
maybe underestimated - volume of silk are domestically produced at this time.

The exports of some textile and above all of clothing products can be
said to pay for the imports of raw material. This means firstly that Viet Nam
is exporting essentially (cheap) labour and secondly that Viet Nam is almost
completely dependent on imported raw material even for domestic consumption.

The strategy would thus consist in increasing the self-sufficiency - at
the very least for domestic consumption - on the assumption that the raw
material can be easily produced. Domestically this is certainly true for silk
and cotton. Production could indeed be sharply increased. The conditions for
synthetic fibres production are not yet fulfilled but this may come with the
development of petrochemicals. No scope prevails for wool.

The problem is the competition for land for other agricultural
production. This problem must be seen in a longer time perspective, in which
the yields - for cotton and for other crops - can be improved both by better
organization and by the use of fertilizers and pesticides. Account must also
be taken of the fact that cotton production can be combined with other crops.
The hypothesis to be tested would be that both tne area under cultivation and
the yields can be substantially increased. The increase of cotton, silk and
viscose production would thus require major organizational changes.

The development of natural fibres production can be seen to have the
following positive effects:

-       increased income for farmers if production is extended and not just
        substituted;

-       the generation of potential industrial activities in rural areas;

-       the increase in domestic outlets for industrial production, such as
        machinery, transport equipment, fertilizers and pesticides, as a
        basis for enhanced industrialization;

-       in a longer term perspective the creation of domestic capacities and
        know-how in the production of raw material is an important factor
        for being able to effectively adapt the fibres to changing
        product/market requirements.

The possible enlargement of the domestic raw material basis obviously has
to be evaluated against the option to continue to purchase the raw materials
on the world market on favourable terms. To assess the options, detailed
explorations would be necessary regarding the conditions and trends for
international sourcing of specific fibres.

If this strategy to build up a raw material base is pursued, it requires
a major reorganization and expansion of linkages in the entire textile filière.

Summary indications for material-base strategy

Objective: Self-sufficiency; dynamism/competitiveness of the
filière

Basic constraint: Agricultural production; organization of the
filière

Development: Of the filière as a structured

Choices: Priority to be given to textile fibres phases of
the development process; in a longer term
perspective focus on specialization of fibres,
products, markets: type of specialization

Consistency problems: Within agriculture; agriculture/industry
relations; fibres with product-mixes

Requirements: Organization of agricultural sub-system;
agricultural inputs; strong competitiveness for
the whole filière to be viable; organization of
all complementary activities at each stage.

ANNEX

CHECKLIST OF ISSUES AND ACTIONS

As described above the analyses of current horizontal linkages at each stage of the filière should follow the specific choice of a strategy so as to narrow down the data requirements and to give proper weight to the chosen objectives. Nevertheless a very broad checklist of general constraints and required actions can be set-up, to enable the grouping of functions and the clarification of the role of the various actors. The application of a filière approach in a particular industrial subsector system enables also the identification of existing and required inputs from various entities outside the actual subsector system. By mapping out critical issues for strengthening the subsector, it is then possible to identify the specific actions required. Thereby the horizontal integration of the subsystem with other subsystems can be examined and developed.

Below a tentative attempt is made to present such a checklist. In the context of this paper it may serve as yet one more illustration of the mapping out of constraints and of identifying information gaps and as a basis for subsequent programmes of data collection, analysis and evaluation and for various actions. Wherever feasible, the possible actors have been proposed.

1. Raw material level

At the raw material level, the key issue is the possible increase of raw material output taking into account the opportunity costs of other agricultural production for food processing, paper etc. and the continued imports of the raw materials.

1.1 Cotton

The issue: Prospects and means to increase production of cotton for the domestic and foreign markets.

Action	Actors
Analyses and economic evaluation of prospects to increase acreage for cotton plantation	Min. of Agriculture
Assessment of prospects to increase yields of production and/or production of "clean" cotton through adequate input of fertilizers, pesticides	Min. of Agriculture Research institute in the country Collaboration with research institute in other countries
Assessment of need for agricultural equipment (increased cotton production) and of current domestic production, quality, price etc. of such equipment	

1.2 <u>Silk</u>

<u>The issue</u>: Prospects for increasing production and improving processing quality.

Action	Actors
Economic evaluation of expanding mulberry tree plantation	Min. of Agriculture
Evaluation of scope for acquisition of spooling machines, drying machines and other equipment for silk processing	Min. of Light Industry
Examination of domestic pricing of silk in the context of international prices	

1.3 <u>Tapioca and viscose</u>

<u>The issue</u>: Prospects for expanding production.

Action	Actors
Feasibility study on scope for investing in plantation and processing	Min. of Agriculture

2. <u>Spinning industry level</u>

In the spinning industry, the following issues can be discussed:

2.1 <u>The issue</u>: Improving the quality of production.

Action	Actors
Quality control programme to be set up in larger spinning mills	Domestic consultant programme jointly with companies and with possible international support
Skill upgrading programme for various categories of labour	
Special training of middle-level technical managers	
Research work to monitor and forecast trends in materials composition and fabrics	Technical and economic research institutes
Research work into scope and means to reduce various chemicals in cotton spinning to enable production of "healthy cloth"	

2.2 <u>The issue</u>:   To increase the capital goods industry's linkage to the spinning industry.

<u>Action</u>   <u>Actors</u>

Exploration of current and potential demand
for equipment, components, spares etc.

Assessment of need for technological up-
grading, investments and/or reorganization
of the engineering industry's capacity in
supplying the above

Incentives, opportunity studies etc. for
promoting investment in (small- and medium-
scale) engineering industries in support of
the spinning industry

Training of market research and marketing   Training Institute
skills

Monitoring of fashion trends (particularly   Research Institute
in blends and colours)

3. <u>The weaving industry</u>

3.1 <u>The issue</u>:   Upgrading processes and product quality and expanding capacities.

<u>Action</u>   <u>Actors</u>

Domestic consultancy companies to be
promoted and induced to identify and advise
on suitable measures

Training programmes for specific functions

Utilization of international assistance to
rehabilitate plants

Assessing investment needs and connected
acquisition possibilities from domestic and
foreign sources of equipment (especially
rapier looms, shuttleless looms and special
machines for linking ribbon weaving, carpets
and accessories)

3.2 <u>The issue</u>:   Improving the marketing support.

<u>Action</u>   <u>Actors</u>

Assessing the scope for setting up a unit in
a specialized market research institute for
the textile industry

4.   The dying, printing and finishing industry

4.1   The issue: Improved acquisition of equipment and chemical inputs.

Action   Actors

Assessment of investment needs in machine
and equipment and scope for domestic
production of equipment

Analysis of and support to companies' inter-   Specialized Institutes
national sourcing of chemicals and other inputs;
Guidelines for procurement

5.   The knitting industry

5.1   The issue: Increased role of Viet Nam's machine industry in the
                     supply of knitting and embroidery machines.

Action   Actors

Assessment of investment needs in knitting
industry and analysis of scope for domestic
production

Analysis of foreign investment prospects

5.2   The issue: Improved exporting marketing.

Action   Actors

Build up of specialized market research and
marketing capabilities

6.   Clothing

6.1   The issue: Improving the efficiency of production and quality of
                     products.

Action   Actors

Promotion of use of consultancy companies   Consulting companies
for enhancing performance of production   and government
                                                        policies

Training and institutional support in design   Specialized institute

Analyses of need for machine and equipment
for cutting, sewing, ironing etc., and of
scope for domestic production

Marketing and market research support through   Specialized institute
specialized institute; institutional support
to international subcontracting

Analyses of need for accessories; and scope
for local production and/or effective
international sourcing

Analysis of opportunities for foreign investment