

3.9 Export Promotion Measures

There are no effective export promotion measures in force in Syria. There are no incentives to export. Income derived from exports is taxable. Export financing is non-existent. Free Trade Zones exist, but there is no incentive to locate factories in Free Trade Zones. At the present stage, Syrian government does not assign high importance to promoting exports, so far as the policy and measures are concerned. In addition, some government policies and export promotion seem sometime contradictory.

In many Asian countries including Japan, government policies and legal systems are geared for the promotion of exports. Incentives and assistance for efforts to exports such as exemption of taxes for income derived from export, export finance and credit, export credit insurance, marketing and other assistance for export activities of private industry, supporting institutions to assist quality and productivity improvement of industries, industrial or free trade zones with utilities and facilities with competitive cost, etc. are unavailable or not functioning in Syria.

3.10 Measures to Attract Foreign Investment and Technology

For balanced economic and industrial development, the attraction of investment and advanced technology from foreign countries is considered crucial, together with export promotion measures. Syria has Law 10 to encourage investment by Syrian nationals and foreigners as well, but it does not seem to be functioning as expected for the textile industry (Table 2.3-10).

There are many reasons for the long term economic growth which Japan and many other countries in East and South-east Asia have accomplished. One of the reasons is that there was no serious threat or war involving the countries in this area. The country risk rating of the countries of the area gradually improved, and investment and advanced technology came into the area.

To accelerate industrial growth of Syria in the current interdependent world economy, where export-import activities are one of the key elements together with the smooth movement of capital, technology and even labor on employment, introduction of investment and technology from outside is the most efficient and

practical measure. Foreign capital judges the investment potential in a country from various viewpoints. Country risk rating is an important yardstick, together with the conventional evaluation of cost factors, availability of raw materials, quality of labor, etc.

The following table shows an example of country risk rating of Middle East and some other countries by the Japanese Institute for Middle East Economy, issued in 1995.

Country Risk Rating of Middle East Countries
(Higher rating index means low risk)

		<u>Total</u>	<u>Political</u>	<u>Economic</u>
Group 1	UAE	77	43	34
	Israel	73	41	32
	Kuwait	72	36	36
	Qatar	70	43	27
Group 2	Oman	69	40	29
	Saudi Arabia	69	38	31
	Bahrain	67	37	30
	Tunisia	66	38	28
	Morocco	65	39	26
	Turkey	65	37	28
	Egypt	61	32	29
	Jordan	61	34	27
Group 3	Syria	54	33	21
	Iran	53	30	23
	Lebanon	51	27	24
Group 4	Libya	45	23	22
	Algeria	37	19	18
	Yemen	35	20	15
	Sudan	28	13	15
	Iraq	21	12	09

The above ratings may not adequately indicate the actual situation of the countries cited, but they at least show how outside countries, who may consider investing in the Middle East, look at the specific countries there.

The country risk table of 1993 includes rating of countries in other area; Taiwan, Korea, Hong Kong, and Singapore belong to the first group, Thailand, Malaysia, Indonesia the second group, and Mexico the third group. Syria currently is rated in the third group, and upgrading into second group or better may help to attract foreign capital and technology into Syria. To this end, Syrian policies for foreign investment and technology should be at least as liberal as these of neighboring countries, or in line with those of Asian countries.

If the target market for Syrian products is to be the EU countries, Syria can enjoy proximity to the market. Syria has a capable population, which is renowned through history. When a market economy system is introduced (privatization, system of competition, profit incentive, etc.) and an avenue of access for foreign capital and technology, as well as export promotion measures are successfully introduced in line with the peace process, Syria would be able to realize her great potential not only in textile industry, but also in many industrial fields.

3.11 Profitability of Public Companies

One of the most serious problems in the countries now transforming their economics is loss making companies in the public sector. These companies may jeopardize their own wage payments and even create a problem for the state budget management. At present, Syrian public companies contribute to the state budget more than their total expenditure. However, the situation regarding the textile industry is questionable. Cotton ginning recorded surpluses up to 1996, but will fall into deficit in 1997 because of two reasons. One is the lower domestic sales price. Cotton Marketing Organization sells raw cotton at cost price to the domestic market, following the advice of the Economic Committee. The other is the decline of the cotton export price. The export price of raw cotton differs from the domestic price, as it is determined by the international market price.

However, domestic cotton is too expensive now. Domestic cotton prices have been increased every year by the Supreme Agricultural Council based on the cost plus marginal profit formula. The only relief for this problem is continuous devaluation of Syrian currency.

GOTI's plan has not been implemented sufficiently these years. In export business, actual results have been higher than plans, but income tax payment is about half that of the plan. Profit before tax is the typical indicator. GOTI prepares the budget plan on the assumption that there is no loss making company, in order to have budget requests approved by the Ministry of Finance easily. But a large loss is registered every year. In the past five years, total loss has been much more than their total profit (Table 3.11-1).

Now GOTI manages 26 companies by new entry of Lattakia and Idleb, but had managed 24 up to 1996. The number of loss making companies is steadily increasing, from 6 in 1992 to 9 in 1994 and 1995, and 11 in 1996. Net profit after tax is increasing, but these figures are only the total of profit making companies (Table 3.11-2). Hama Co., of middle scale among the GOTI companies, performs excellently, and has earned half of the GOTI's profit and paid half of GOTI's income tax. Al-Khomasih (United Industrial Commercial Co.) is second in importance by these standards. Carpet Co., Aleppo General Company for Silk Weaving, and Al-Shark Co. are profitable, but profits are not so large. This situation represents a threat to the future of GOTI. Only a few companies can survive. Eight to ten companies are on the border line of survival and closing down. Ten companies are already in the serious conditions to the extent that they could not continue operation, if the budget support is stopped (ANNEX-8).

**Table 3.11-1 COMPARISON OF PLANS AND ACTUAL RESULTS
OF GOTI AND ITS RELATED COMPANIES**

	Profit before tax		Income tax		Export			
	SP mil.		SP mil.		US\$ mil.			
	Plan	Actual	Plan	Actual	Plan	Actual	Cotton yarn	Cotton fabrics
1990	-	-	-	-	59	89	36	28
1991	-	-	-	-	4	83	38	30
1992	624	260 -215	368	114	20	90	49	30
1993	608	152 -397	368	68	19	58	26	20
1994	433	324 -426	267	131	26	43	21	8
1995	444	417 -339	277	201	28	32	27	2
1996	350 -25	499 -407	244	139	4	36	28	4

Note : * Actual figures in the upper row are the total amount of profit making companies.
Those in the lower row are the total amount of loss making companies

Source : GOTI

Table 3.11-2 FINANCIAL RESULTS OF GOTI AND RELATED COMPANIES

SP million

	Profit before tax (*)	Income tax	Net profit	Liquidity surplus	Budget surplus	Total surplus (**)
1992	260 - 215 (6)	114 -	146	-	-	-
1993	152 - 367 (...)	68 -	84	-	-	-
1994	324 - 426 (9)	131 -	193	163	119	282
1995	417 - 339 (9)	201 -	216	375	208	583
1996	499 - 407 (11)	139 -	360	179	124	303

Notes(*) : Upper figures in each year show the total amount of the profit making companies and bottom figures show the total amount of loss making companies. Figures in parentheses show the number of loss making companies, out of 24 companies up to 1996 in contrast to 26 in 1997.

(**) : Total surplus includes loss making companies. Liquidity surplus can be accumulated without limitation of years and can be used for shortage of working capital and replacement/modernization investment. The net profit is not equal to total surplus.

Source: GOTI

3.12 The Administration Function for the Industry

3.12.1 Ministry of Industry

General Organization for Textile Industry (GOTI) belongs to the Ministry of Industry. This Ministry supervises undertakings by public companies in six sectors as shown below. GOTI is the largest body in the six General Organizations under the Ministry (Figure 3.12-1).

	<u>No. of public companies</u>
• Food	18
• Sugar	10
• Engineering	14
• Chemical	13
• Cement	10
• Textile	26

The Ministry of Industry separates public companies from the central office. The Ministry of Industry is like a holding company that manages personnel matters, and budget plan and implementation of budget expenditure, of six General Organizations. This Ministry has four supporting centers, for standardization, productivity, research and testing, and vocational training. The central office is very simple, and the policy function is very weak.

The total staff at the central office is only 155, out of which 47% are engaged in personnel affairs, management and account. It is noteworthy that only the Department of Private Industrial Sector and Handicraft has many staff. This department analyzes and estimates private activities for the annual plan, but the Ministry does not have actual promotion measures except supporting functions. It supervises six General Organizations and approves new pricing of goods and services by competitive public producers (See Chapter 2.2).

Important policy matters are authorized to other ministries such as investment planning for the public companies (SPC), taxation and subsidies (Ministry of Finance), foreign trade, foreign exchange, banking and cotton ginning (Ministry of Economy and Foreign Trade), and pricing for monopoly suppliers (Ministry

of Supply and Internal Trade). The Ministry of Economy and Foreign Trade plays an important role for industrial policy (Figure 3.12-2).

3.12.2 GOTI

GOTI is one of the General Organizations that combines the public companies in each sector (See Chapter 2.2.2). 180 staff are employed in eight departments, making GOTI larger than the Ministry of Industry (Figure 3.12-3). Each public company is independent of one another and also from the General Organization. The relations between General Organization and each company are regulated by Law No. 20 (1994) and other instructions. The role of the General Organization is to supervise and coordinate the related independent public companies by the following ways.

- a. Proposals on principles and rules
- b. Standards
- c. Planning and follow-up of the implementation, for production, export, marketing, investment, employment, profit and prices
- d. Product guarantee and quality control
- e. Endorsement of annual plans for investment, production, marketing, workforce, return, estimated budget
- f. Coordination among public companies
- g. Quarterly and annual reports on implementation and the financial situation
- h. Research and study
- i. Ratification of contracts exceeding one million SP

Each public company is responsible for implementation of the plans in the right way to achieve the designated goals by the following measures.

- a. Suggestions on rules
- b. Suggestions on standard
- c. Implementation plans for production, export, marketing, investment, employment, profit, prices and policies
- d. Suggestions on production guarantee and quality control
- e. Suggestions on annual plan
- f. Coordination among different units in the company
- g. Period reports on activities and finance
- h. Research on cost factors

- i. Improvement in production, employees' discipline
- j. Follow-up of implementation
- k. Estimation of revenue, cost and profit
- l. Transfer of profits to the General Organization
- m. Training of employees
- n. Study
- o. Ratification of contract exceeding one million SP

This legal framework obliges General Organizations to take active leadership among related public companies, however this idea is not materialized in actual practice, while only the red-tape of planning procedure has survived.

The public companies cannot contact the central administration directly. Most of the GOTI function is that of an intermediate between the company and the central government in many field such as personnel matters, budget planning and implementation, marketing, investment planning etc. At present, daily work is mainly compilation of the reports from each public company and carrying out the necessary administrative procedures, while following functions still remain at GOTI.

- Standardized payment system of wage incentives
- Obtaining necessary foreign currencies for non-exporting companies
- Recommendations to loss making companies including production changes

The last of these items is very important, however GOTI's recommendations are stereotyped, and call for producing more in order to lower the unit fixed cost. GOTI can not stop increasing of the number of loss making companies. GOTI lacks expertise on world textile market analysis, technical development, quality and design, accounting, investment analysis, financial evaluation, etc. Its main problems are closely linked to institutional regulations.

3.12.3 Chambers of Commerce and Industry

Chambers of Commerce and of Industry exist in Damascus and Aleppo. Their role and activities are described in 5.1.1.

The Syrian government has to pay attention to administration intermediation between the government and private companies. Private companies are spread widely by sectors, by regions and by scale. The government has to develop its information network encompassing the private companies, for the sake of better administration. From this point of view, these Chambers are the only a start for that purpose. The government has to encourage the private companies to set up voluntary industrial associations based on field of business, region, and so on. These Chambers and associations will help the government by promoting orderly behavior of the private sector, and will facilitate policy formation for industrial development.

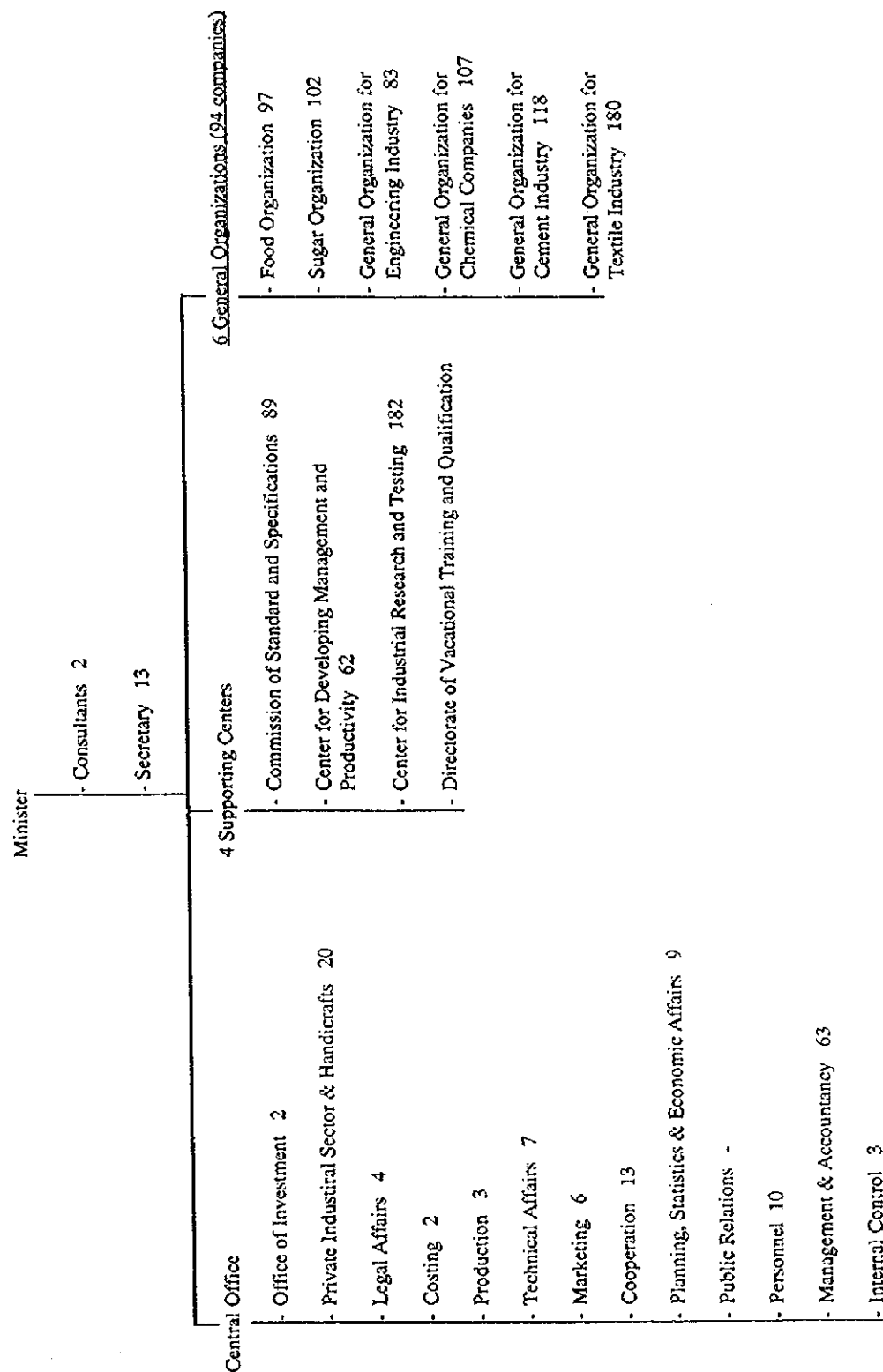
3.12.4 Statistics and Information

The Central Bureau of Statistics (CBS) publishes "Statistical Abstract" once a year. However, this report is not sufficient for monitoring and analyzing the current state of economic development, because the economy is advancing at high speed. Main indicators are related to production, then sales, stocks, prices, financial statement are lacked. Many parties require more frequent supply of information, and up-to-date information, as well as past data. Moreover, the CBS cannot follow the activities of private companies well.

The Syrian government has issued a great number of laws, decrees, resolutions etc, but it is very difficult for the people to have access to these legal documents.

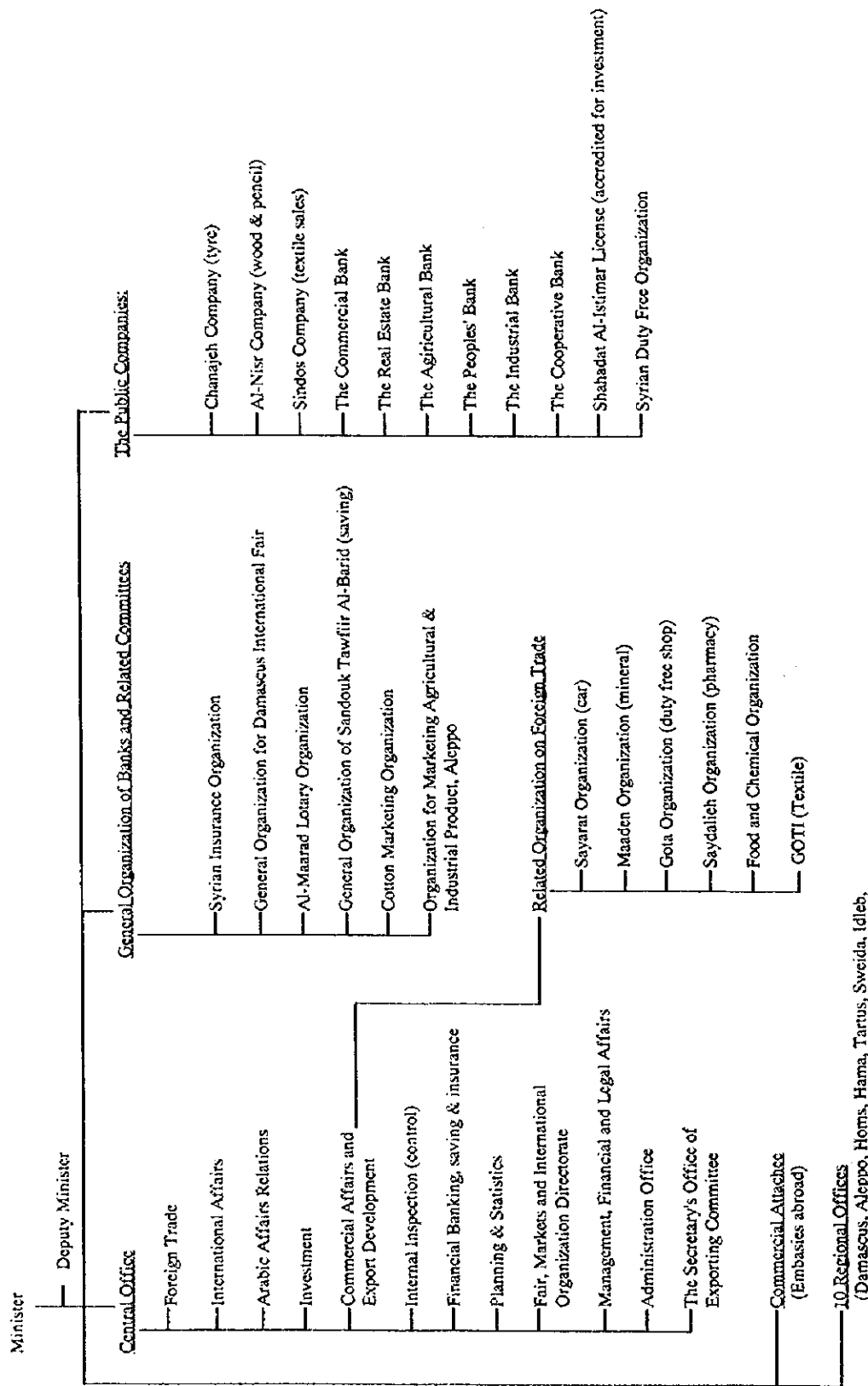
Generally speaking, economic news is not disseminated here, compared with political or cultural news. The people and potential investors, however, want to get much information. Important information at present can only be supplied by the government through personal contacts with the right person in the administration. These day-to-day problems are easy to be overlooked, but it is true that there can be no prosperity in Syria from the viewpoint of long-term development, without improvement of these aspects of soft infrastructure.

Figure 3.12-1 ORGANIZATION OF THE MINISTRY OF INDUSTRY



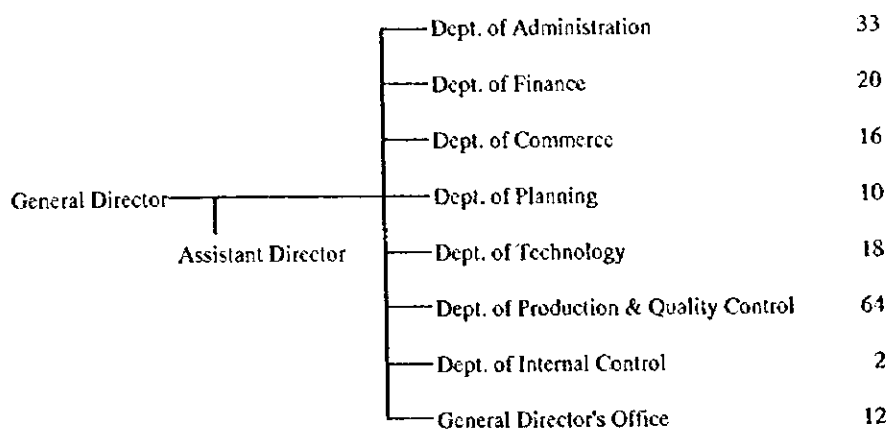
Note : Figures after the name of divisions, centers or general organizations show the number of staff.
Source : Ministry of Industry

Figure 3.12-2 ORGANIZATION OF MINISTRY OF ECONOMY & FOREIGN TRADE



Source : Ministry of Economy and Foreign Trade

Figure 3.12-3 ORGANIZATION OF GOTI



Notes : 1. Figures are the number of actual employees. The total is 180, lower than the legislative number 239.

2. The Dept. of Production & Quality Control is composed of the Research, Maintenance, Standard, Quality Control, and Production Development Divisions.

3. Each company related to GOTI has a similar structure. Generally speaking same department between GOTI and the company contacts each other.

Source : General Organization for Textile Industry (GOTI)

3.13 Industrial Policy

Syria has promoted industrialization mainly by the following measures.

- Investment plans by the SPC.
- Foreign trade, foreign exchange and banking by the Ministry of Economy and Foreign Trade.
- A preferential foreign exchange rate for imports and customs tariff payment for the public companies and foreign investment promotion by the Ministry of Finance (Law No. 10).
- Construction of industrial zones and free trade zones by the Ministry of Industry.

Many Ministers are involved in industrial policies. The Economic Committee composed of 15 Ministers meets once a week to discuss and decide economic policy issues. There is no headquarters or permanent office for industrial policy. Trade liberalization and unification effort of foreign exchange rates to a market rate will seriously influence the Syrian economy. The manufacturing sector will face a severe adjustment once exposed to the competitive forces of the world market. Furthermore, the textile industry has many competitors in developing countries.

The strengths of Syrian industry are stable supply of raw material, cheap labor cost, technical accumulation in some sectors, good road transportation, and social stability. However, Syria has many weak points such as frequent outage of electricity supply, out-of-date machinery and equipment, weak marketing, inadequate supply of spare parts, inefficient working practices, a restrictive price system, difficulty and high cost of obtaining foreign currency, poor credit practices, limitation of resources, high tax burden, insufficient information, etc. Many companies have been established in the industrial zone. Public companies are dominant there in number and in land territory. But its infrastructure is not sufficient and the zone is not free from the current regulations. There are six free trade zones where customs procedures are available, but electricity charge is more expensive than others. It will be difficult even for a private company to survive in the coming open market economy. Many public companies may face

difficulties, even if the government provide machinery and equipment paid for by the state budget.

The government has started to review sectoral international competitiveness, to consider further promotion of private businesses, and to examine relaxation of the regulations on public companies (See Chapter 2.3.6 and Chapter 2.4.2). Problems it faces in so doing are the absence of a central office of policy formation, the limited number of staff to be allocated for that purpose, and rare dissemination on policy arguments to the people.

3.14 Textile Industry in the National Development Strategy

The Eighth Five-year Plan 1996-2000 is still under discussion in the SPC. The Syrian government provided much information to the Team. These figures are subject to revision up to the end of 1997, but the Team succeeded in clarification of medium-term forecasts and the policy directions up to 2000. This information is vital to design the long-term development and strategic policies (See Chapter 2.2.3).

GDP will grow by 6.4% which is slower than in the past years, but still higher than the average growth of the developing countries. Manufacturing is expected to grow by 9.9% which is about double that in agriculture. Inflation will be managed within 10%. In the foreign trade, exports will increase 6.1% contrasting the lower increase of import, however trade deficit can not be improved much (Table 3.14-1). Sectoral forecasts are not available, while the Ministry of Industry estimates the sectoral growth only in the private sector. Textile and metal processing are expected to grow at the highest speed of all sectors and textile production will occupy more than 30% in the private manufacturing sector in 2000 (Table 3.14-2).

Local production of textile materials will also increase steadily. Production of seed cotton (before ginning) is expected to reach 780,000-800,000 tons in 2000 owing to development of irrigation and expansion of land under cultivation. Though the cotton harvest was extraordinary better in 1996, Syria expects a further increase of the harvest. Raw wool is also expected to grow by 6% a year

owing to increased supply of feed made possible by wheat production. On the other hand, silk cocoons will barely maintain the current level (Table 3.14-3).

Cotton Marketing Organization expanded the ginning capacity from 467,000 tons to 692,000 or by about 50% in 1996. Stock piling of seed cotton is a cause of poor quality.

Under such circumstances, GOTI submitted its proposed Five-Year Plan (See ANNEX-7) to the Ministry of Industry and SPC. Though half of the GOTI's companies are producing losses, they expect to grow considerably. They will restrict growth of the number of employees to a 60% increase, but will stimulate production and value added by 2.3-2.4 times over a five-year period. Investment will increase a great for 1997-99 (Table 3.14-4). GOTI is promoting ambitious projects in cotton spinning at Lattakia, Idleb and Jableh, which have been contracted for and are already on-going. Further, GOTI proposes another project in Tartus. If these projects are all implemented, the spinning capacity of GOTI will be doubled in 2000 (Table 3.14-5).

Even if the GOTI's plan is materialized, the private sector will keep its leading position in Syrian textile industry in production, investment and employees. The private textile industry is expected to grow at the high speed of 12 per cent a year, competing with metal processing industry (Table 3.14-2). The public textile companies are concentrating on cotton spinning.

The Eight Five-year Plan will show a hopeful future for Syria. The next task imposed on the government is how to realize the above objectives and goals.

**Table 3.14-1 MACRO-ECONOMIC FRAMEWORK IN THE FIVE-YEAR PLAN
(Draft)**

in real term

	Annual growth rate (1996-2000, %)
1. Population	3.2 ~ 3.3
2. Production	
Total	6.0 (6.4)
Agriculture	5.5 (5.6)
Mining	9.4 (10.4)
Manufacturing	7.5 (9.9)
3. Retail price increase	8.0 ~ 10.0
4. Foreign trade	
Imports	3.4
Exports	6.1

Notes 1: The figures in parentheses are by GDP base figures (value - added base).
2: Foreign trade is estimated as follows in 1995 prices.

	<u>1995</u>	<u>2000</u>
Import (SP bil.)	270.0	320.0
Export (SP bil.)	179.5	240.0

Source: SPC, Aug. 1997.

Table 3.14-2 PRIVATE SECTOR PRODUCTION FORECAST, 1995-2000

Unit: SP million in 1995 prices

	1995		1996		1997		1998		1999		2000		Annual growth (%)		2000/1995 (%)	
		Component (%)		Component (%)		Component (%)		Component (%)		Component (%)		Component (%)		Component (%)		Component (%)
Food	17,374	19.5	19,111	19.5	21,023	21.0	23,125	23.1	25,437	25.4	27,981	27.9	10	19.3	10	161
Textile	25,372	28.5	28,417	28.5	31,827	31.8	35,646	35.6	39,923	39.9	44,714	44.7	12	30.8	12	176
Wood	9,645	10.8	10,320	10.8	11,043	11.0	11,816	11.8	12,463	12.4	13,335	13.3	7	9.2	7	138
Paper	2,121	2.4	2,206	2.4	2,294	2.2	2,386	2.3	2,481	2.4	2,581	2.5	4	1.8	4	122
Chemical	7,720	8.7	8,569	8.7	9,512	9.5	10,558	10.5	11,720	11.7	13,009	13.0	11	9.0	11	169
Non-Metal	7,845	8.8	8,394	8.8	8,982	8.9	9,610	9.6	10,283	10.2	11,003	11.0	7	7.6	7	140
Metal	434	8.5	447	8.5	460	4.6	474	4.7	488	4.8	503	5.0	3	0.4	3	116
Metal Processing	17,407	19.6	19,496	19.6	21,835	21.8	24,456	24.4	27,390	27.3	30,677	30.6	12	21.1	12	176
Others	1,105	1.2	1,149	1.2	1,195	1.1	1,243	1.2	1,293	1.2	1,344	1.3	4	0.9	4	122
Total	89,023	100.0	98,109	100.0	108,171	108.1	119,296	119.2	131,478	131.4	145,147	145.1	11	100.0	11	163

Source: Ministry of Industry, Aug. 1997.

Table 3.14-3 TEXTILE MATERIALS PRODUCTION PLAN IN THE 8TH FIVE-YEAR PLAN

(As of September 1997)

	Seed cotton (1000 tons)	Cotton cultivation land (1000 ha)	Washed wool (1000 tons)	No. of sheep (1000 head)	Cocoon (tons)
1995 (actual)	600	204	13.0	12,000	68
1996 (actual)	760	220	14.0	13,120	69
1997	-	235	14.8	13,910	69
1998	-	245	15.9	14,740	70
1999	-	260	16.7	15,630	71
2000	780~800	275	17.7	16,560	71

Note : These figures are tentative and are to be finalized by the end of 1997. Seed cotton in 2000 is adjusted according to the suggestion of SPC, because the original estimation of the Ministry of Agriculture is believed to be extremely high.

Source : Ministry of Agriculture

Table 3.14-4 FORECASTS OF SYRIAN TEXTILE INDUSTRY ACTIVITIES

(August 1997)

		1995 actual	1996 (planned)	1997 (planned)	1998 (planned)	1999 (planned)	2000 (planned)
(Public-GOTT)							
Production	mil.SP	11,220	11,577	16,061	20,278	22,361	26,543
Necessary materials	mil.SP	7,700	7,950	11,043	13,833	15,394	18,465
Value added	mil.SP	3,520	3,626	5,017	6,444	6,967	8,078
Investment	mil.SP	-	2,327	5,951	6,216	5,281	3,062
Employees	number	24,919	24,742	32,323	35,599	36,503	39,986
(Private)							
Production	mil.SP	25,372	28,417	31,827	35,646	39,923	44,714
Necessary materials	mil.SP	20,109	22,522	25,225	28,252	31,642	35,439
Value added	mil.SP	5,263	5,895	6,602	7,394	8,281	9,275
Investment	mil.SP	2,740	3,617	4,775	6,303	8,319	10,982
Employees	number	46,244	51,793	58,008	64,969	72,766	81,498

Source : General Organization for Textile Industry and Ministry of Industry

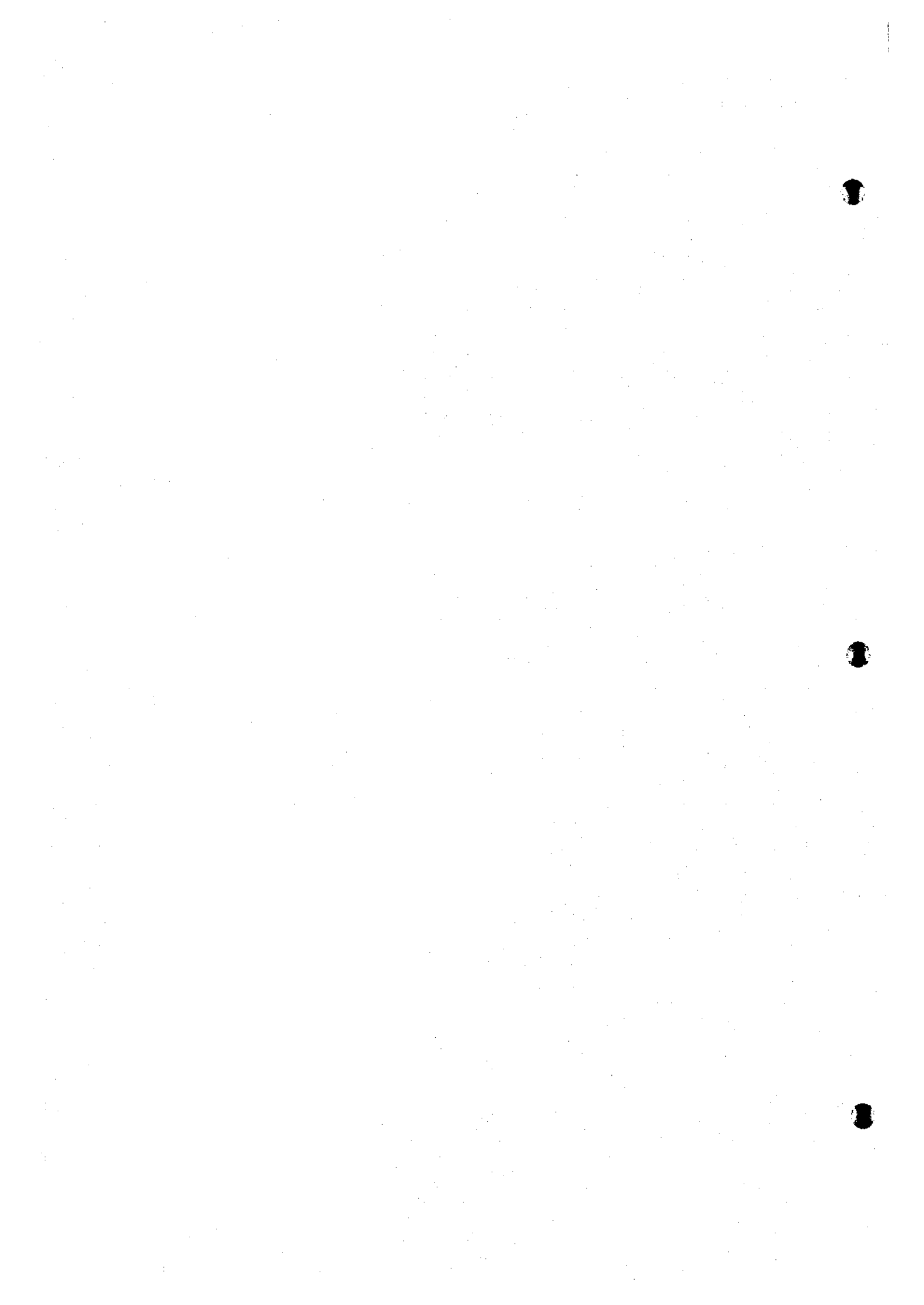
Table 3.14-5 GOTI'S SUCCEEDED AND NEW PROJECTS UP TO 2000

	Construction period	Capacity (1,000 tons)	Contractor	Financial resources
Lattakia spinning	1994~Mar.1997	15	Beco (Germany)	Government Plus Islamic Bank
Lattakia expansion	Jun.1997~Mar.1999	12	Beco (Germany)	Government
Idleb spinning	1993~Nov.1997	15	Alfamatem (Spain)	Kuwait Fund plus Government
Jableh spinning	Sep.1997~Mar.2000	24	Ctex (China)	Government
Tartus spinning	Not decided	12~15	Not decided	Not decided
Total	-	79~80	-	-

Note : Succeeded projects are those approved in the past five-year plan, and are still constructing. New projects are the proposed ones in the coming five-year plan.

Source : General Organization for Textile Industry (GOTI)

4. Textile Industry



4. Textile Industry

The general profiles of the textile and clothing industry in Syria were developed on the basis of export statistics of 28 countries and Syria's relevant statistics and taking into consideration of the fields surveys.

The Syrian textile industry can be classified by raw material as domestic cotton and imported synthetic fibers, and by company as cotton and upstream oriented state-owned companies, and midstream/downstream oriented private companies which process imported synthetic fibers and domestic cotton.

State-owned companies have problems of operating older facilities, lack of thinking to give importance to quality and customers. On the other hand, some private companies have profitably exported clothing (using Syrian cotton and/or sewing imported materials) to the EU and the U.S.

State-owned companies and private companies act separately without coordination is a serious problem.

4.1 Textile Fibers

4.1.1 Locally Produced Textile Fibers

Textile fibers produced in Syria are cotton, wool, and silk, while no synthetic fiber is produced.

Cotton produced in the country is all purchased by the government and sold to state-owned cotton mills or exported. Cotton is the second largest source of foreign currency next to oil, and the textile industry which processing cotton serves as a major economic base in terms of employment.

The government currently bans imports of cotton, spun yarns, fabrics, and other products to protect cotton farms and state-owned textile companies. Also, it is restrictive about the entry of private companies to cotton spinning by limiting license to companies who can handle the integrated process of spinning, weaving, and dyeing. As for wool, spinning and carpet production are limited to state-owned companies.

(1) Cotton

Cotton production in the country amounts to around 250,000 tons annually, of which 75,000 tons is supplied to the domestic industry, and the remaining amount is exported without processing. Cotton yield per unit of cultivation area has already reached the world class levels, and a further increase in cotton production will inevitably rely very much on the increase in cropping area and the expansion of irrigation systems. A cotton expert estimates that cotton production will grow to a maximum 275,000 tons in 2010.

Cotton varieties produced in Syria include Aleppo 33/1 and 40, Rakka 5, and Dier Ezzor 22, of which Aleppo 33/1 offers the best quality and can produce fine fibers up to Ne40 - 50. It is used for high-grade spun yarns produced locally.

Syrian cotton prices, CIF Scandinavia, are of the same level or higher than cotton produced in neighboring countries such as Greece, Turkey, and Pakistan, as well as Africa, indicating that its quality is similarly valued.

Note that extra long staple (ELS) cotton cannot be produced due to climatic conditions.

(2) Wool

Syria has 6 million sheep (some statistics show 12 million sheep) but the breed is not suitable for commercial wool production. Local wool is generally blended with imported wool in the ratio of about 20/80 to produce carpet wool yarns. Production of raw wool is 5,000 tons/year in terms of greasy wool resulting in 2,750 tons/year of washed wool. Domestic consumption is about 1,200 tons/year of washed wool the balance being exported.

(3) Silk

Production is decreasing and current production is reported to be around 3 tons/year. The reason for the decrease is that the production cost of silk is high.

4.1.2 Synthetic Fibers

Synthetic fibers and regenerated fibers are all imported, and the domestic consumption is larger than cotton.

The country does not produce synthetic fibers or regenerated fibers, and there are no plans to do so. As no raw materials for synthetic fiber are produced, and domestic demand is low, it is safe to assume that synthetic fiber production will not be carried out in Syria for the foreseeable future.

4.1.3 Overview of Textile Companies

4.1.3.1 Activity areas of state-owned and private companies

The overall structure of the textile industry by material, export/import, company ownership (state-owned and private), and process (spinning, weaving, knitting, dyeing and finishing, and sewing) is shown in Figure 4.1-1. This figure was compiled in conducting demand forecasts discussed in Chapter 6 by using the following statistical data:

- Input of local materials to the textile industry: Syria's official statistics
- Import volume: Statistics of countries exporting textiles to Syria (23 industrialized countries, Korea, Taiwan, Turkey, Singapore, and Hong Kong: totally 28 countries.)
- Export volume: Syria's official statistics of exports
- Activity areas of state-owned and private companies: Activity areas other than those of state-owned companies are assumed to be handled by private companies, because the comprehensive study was made as to the state-owned textile companies.

See Chapter 6 and ANNEX-3 for details

Fig.4.1-1 illustrates general profiles of the textile and clothing industry in Syria, which is described below. Note that the figure is based on estimates as of 1996, and for the purpose of this study, synthetic fiber includes some of rayon regenerated fibers.

(1) Local textile materials

In Syria, 250,000 tons of cotton are produced annually, of which one third is shipped for domestic consumption, and two-thirds exported. Washed wool production is fairly small, 3,000 tons annually. No synthetic fiber is produced locally, it is all imported.

(2) Imported synthetic fiber

Approximately 80,000 tons are imported annually, 80% of which are filament yarns (FY), and the remaining 20% staple fibers (SF). Acrylic yarns account for around 70% of SFs. Polyester staple fiber imports are therefore small, and so is the production of cotton/polyester blended yarns. Imports of blended fabrics are also small, indicating that the market favors FYs.

Some companies import polyester POY and produce DTY (draw textured yarns).

(3) Cotton spinning

Cotton spinning is primarily carried out by state-owned companies, and licenses are granted to private companies which have integrated processes of cotton spinning, weaving, and dyeing. State-owned companies have been actively adding spinning facilities to increase value added exports as far as possible, to replace exporting raw cotton.

Sabbagh and Sharabati is the largest cotton spinning maker in the private sector, which spins, weaves, and dyes cotton yarns for jeans at modern facilities and with modern machines.

(4) Weaving and knitting

Imported synthetic fiber accounts for a larger portion than cotton in the weaving and knitting processes. Although detailed data is not available, knitting seems to account for a larger volume of consumption than weaving.

State-owned companies produce around 15,000 tons of cotton woven fabrics annually. Thick fabrics not used for clothing account for around one half of this total.

In the private sector, Sabbagh and Sharabati seems to have the largest weaving capacity for jeans at around 10,000 tons annually.

Weaving of synthetic FYs is carried out widely by manufacturers in the Klaseh Industry Zone, Aleppo, and other areas.

Knitting is undertaken by many private companies, and cotton clothing is exported in volume.

(5) Dyeing and finishing

Production capacities of private companies are much higher than those of state-owned companies. Dyeing and finishing of synthetic fiber are mostly carried out by private companies. In Aleppo and Damascus, there are a large number of commission based dye-houses. In addition, there are reportedly many companies involved in fabric printing. Many of them have high pressure high temperature dyeing machines to process synthetic fiber. They also have synthetic yarn dyeing lines.

(6) Sewing

Again, private companies have much larger production capacities than state-owned companies. Large sewing manufacturers in the private sector can roughly be classified into the following three types:

- Manufacturers of knit underwear and T-shirts using Syrian cotton
- Manufacturers of jeans using Syrian cotton
- Sewing manufacturers using imported fabrics and accessories

All the products except for jeans are largely exported. Some manufacturers do not supply any of their products to the domestic market. Exports are bound for the EU, the U.S., and neighboring countries. In particular, companies which export their products have been adding production lines and building new factories, and hence expanding their businesses rapidly.

The above situation is summarized as follows:

	State-owned	Private
Raw material	Domestic	Import, Domestic
Fiber type	mainly Cotton	mainly Synthetic, Cotton
Processing	Upstream (mainly Spinning) Weaving, Knitting, and Dyeing and Finishing are smaller than private	Midstream, Downstream (Knitting, Weaving, Dyeing and Finishing, and clothing)
Export	a small volume (cotton spun yarn is exported)	- Export of Syrian cotton clothing - Export of imported fabric clothing
Number of employees, Sales	smaller than private	larger than state-owned

4.1.3.2 General profiles of the textile and clothing industry by type of material

Figure 4.1-2 - 7 illustrates general profiles of the textile and clothing industry by type of material (assumed to be as of 1996). Note that synthetic fiber includes some rayon regenerated fiber.

(1) Cotton (Fig. 4.1-2)

Production of spun yarns is estimated at 63,000 tons annually, 53,000 tons by state-owned companies and 10,000 tons by private companies. In spinning, state-owned companies represent the major portion of production, while private companies account for much larger portion in the subsequent processes. Until 1996, spun yarns were only exported by Hama Cotton and in small quantities. In 1997, however, Lattakia Spinning started operation and is now exporting an estimated 10,000 tons annually.

Exports of clothing which use Syrian cotton (e.g., underwear and T-shirts) are on the increase. Domestic consumption of cotton products is estimated at around 46,000 tons per year.

(2) Synthetic filament yarn (FY) (Fig. 4.1-3)

Synthetic FY is imported at a rate of 50,000 tons annually, which represents a large volume for the country and are mostly processed by private companies. State-owned companies also use some synthetic FY to produce DTY.

The major application of synthetic FY, however, is knitting. Woven fabrics for native dress are made in the Kaseh Industry Zone, Aleppo, by using Jacquard machines with a production volume of approximately 6,000 tons per year.

Domestic consumption of synthetic FY products is estimated at around 41,000 tons per year.

(3) Synthetic staple fiber (SF) (Fig.4.1-4)

The country imports as much as 27,000 tons of synthetic SF annually, 80% of which are spun yarns and are processed by private companies. Production of synthetic blended yarns by state-owned companies is small, being only around 2,000 tons per year. Acrylic yarns account for about 70% of imported synthetic spun yarns.

Domestic consumption of synthetic SF is estimated at around 23,000 tons, approximately one half that of synthetic FY.

(4) Wool (Fig.4.1-5)

Locally produced wool is not suitable for textile production and is therefore blended with imported wool (approximately 20% of total) to make carpets and similar products.

Domestic consumption of wool is estimated at around 2,000 tons per year.

(5) Cotton and synthetic SF (Fig. 4.1-6)

As cotton and synthetic SF are processed in the same way they can be treated collectively as shown in the figure. The volume of their total processing at the fabric stage is approximately 86,000 tons per year.

(6) Synthetic FY and SF (Fig. 4.1-7)

For synthetic FY and SF, the processing volume at the fabric stage totals 71,000 tons per year, which exceeds the 62,000 tons of cotton. The 71,000 tons comprises FY70% and SF 30%, and is mostly processed by private companies. Exports are made in both the form of fabrics and clothing.

Domestic consumption of synthetic FY and SF amounts to an estimated 65,000 tons annually, again significantly exceeding the 46,000 tons of cotton.

4.1.3.3 Present situation of state-owned companies

(1) Production facilities and producing capacities

ANNEX-9 summarizes the production facilities and producing capacities of the state-owned textile companies of cotton spinning, knitting (underwear), dyeing and finishing, wool spinning, and carpet production.

(2) Problems

When it exported to the former USSR and Eastern Europe, the textile industry's main concern was quantity rather than quality. After the collapse of the principal markets, the industry is expected to enter export markets which give priority to quality. However, the study team failed to see the willingness and need for such transformation, and the management who consider that quality and production efficiency are important at most of the state-owned companies it visited.

An excessive number of the employees in the state-owned companies is also a big problem. It is also true that production equipment in the state-owned companies is mostly old; however, it is also true that if the old machinery were totally replaced by new machinery all the problems would be cleared up. As pointed out in Chapter 3, there are many institutional matters remain.

(3) Variation in performance among state owned companies

There are state owned companies that produce spun yarns of high quality by effectively utilizing old equipment and managing their operations in excellent ways. These companies are highly valued by domestic and foreign customers alike. On the other hand, others have massive inventories with problems being seen in every aspect from factory management to quality control. Thus, there is a significant variation in performance among state owned companies, probably due to a variety of factors, including the quality of labor, which is affected by factory location, and difficulty in labor management, and the capability of managers.

(4) Construction of new spinning mills

As part of the effort to export value added products, new spinning mills have been constructed to manufacture spun yarns solely for export. The Lattakia new spinning mill has already started commercial operation and the Idleb mill will

come on stream soon. Three more projects are planned, Jableh and the second phase of Lattakia and Tartus.

(5) Production, exports and domestic consumption of cotton spun yarns in 2000

These new projects start operation in 2000, then the production/export/domestic consumption will be as shown in Figure 4.1-8. Production of cotton spun yarn will be increased double of the present production and as a result the export of spun yarn or clothing must be increased. However, the export of spun yarn may not be economically profitable and may not represent best interest of the industry in view of promotion of the textile industry. As discussed in detail in Chapter 6, clothing is taking up an increasing share of world textile trade. Syria can capitalize on the world trend and thus needs to boost clothing exports by leveraging its major advantages, low labor cost and proximity to the major market in Europe.

(6) Growth of textile industries under concerted efforts of state-owned and private companies

Therefore, a more realistic and viable approach is to use the new spinning mills to supply high quality spun yarns to private companies in large quantities, helping them to expand knitting, weaving, dyeing and finishing, and sewing operations, which will lead to more clothing exports. This is a more likely and feasible scenario for growth of the Syrian textile industry.

State-owned companies should envisage growth under concerted efforts of state-owned and private companies, rather than focusing on their own growth by exporting spun yarns.

4.1.3.4 Present situation of private companies

(1) Constitute an integral part of the midstream and downstream

For the textile and clothing industry in Syria to develop into one of the major exporting industries, expansion and growth of private companies is imperative as they constitute an integral part of the midstream and downstream sectors.

(2) Many of them are managed under a quality-comes-first policy

The study team visited mainly large companies, which, compared to the state-owned companies, do not have surplus labor and have newer machines. Activities on the factory floor are very brisk, and the "5S" rules seem to be strictly complied with. Many of them are managed under a quality-comes-first policy.

(3) Growing by exporting clothing made by using local cotton and by sewing imported materials for EU and the U.S.

In the export business, there are companies which have been growing by exporting knitwear made by using local cotton, and those which successfully export products by sewing imported materials. The exports are destined for the EU, the U.S., and neighboring countries. Some companies specialize in exporting to the U.S. Many of them have steadily been adding to their production capacities, and the shop floor activity is very brisk. It would appear that they would be able to boost exports further.

(4) There are many commission based dye-houses

There are many commission based dye-houses, which have sufficient high temperature, high pressure dyeing machines to process synthetic fibers and fabrics.

(5) Outline of the private companies visited

In fact, GOTI does not have detailed data on private companies engaged in textiles and clothing, and the first field survey could not collect sufficient information. During the second field survey, however, the study team identified and visited private companies by obtaining background information from foreign dye companies and through cooperation from the Chamber of Industry. As a result, general profiles of the textiles and clothing industry have finally been obtained.

As pointed out earlier, the study team visited relatively large private companies. The 34 companies visited can be roughly classified into the following types (Table 4.1-1):

- 1) Those exporting underwear and T-shirts using Syrian cotton (using high-grade spun yarns produced by Lattakia and Hama)
- 2) Those exporting a variety of clothing including men's suits, trousers, shirts, and women's underwear by sewing imported materials
- 3) Commission based dye-houses (many are located in Aleppo and Damascus and can dye synthetic fabrics)
- 4) Jeans manufacturers (Sabbagh & Sharabati has a modern, integrated production system consisting of spinning, weaving, and dyeing and supplies fabrics for jeans to the domestic market. In addition, there are companies which weave and dye fabrics for jeans and operate jeans shops. Jeans, therefore, make up a large market in Syria.
- 5) Others
 - Acrylic blankets (Sabbagh & Sharabati)
 - Velvet (Sabbagh & Sharabati)
 - Polyester non-woven fabrics (Rankoushi & Dakkak)
 - DTY yarns (Modern Ind. & Commercial)
 - Synthetic FY weaving (Klasch Industry Zone)
 - Towels (Abu Shaar))

4.1.4 Outline of GOTI (General Organization for Textile Industry) Five-year Plan, (draft, 1996-2000)

The draft plan is contained in ANNEX-7, and this section describes its general outline. It should be noted that the development plan envisages only state-owned companies, and thus there is no development plan for the entire industry including the private sector. Also, data contained in the plan's tables are also partly inconsistent. For these reasons, this section introduces the plan's general outline only. Note that the draft plan may be modified to reflect the Study Team's Report.

(1) General contents

The plan envisages total production to increase from 11.6 billion SP in 1996 to 26.5 billion SP in 2000, a 136% increase, with a 60% increase in employment and a total investment of 22 billion SP.

Major headlines are as follows:

1. Major indicators

2. Investment plan (upgrading and modernization of existing machines, and ongoing and new investment with breakdown by foreign and domestic currency portions)
3. Investment plan (ongoing and new projects)
4. Manpower plan
5. Production plan
6. Marketing plan

(2) Investment plan (Table 4.1-2)

The total investment over the five year period between 1996 and 2000 is 22 billion SP. Of this total, 7.3 billion SP will be allocated to upgrading and modernizing existing facilities and equipment, 8.5 billion SP will be spent on new projects, as listed below. (As the investment figures are different between the summary and the individual tables, and the figures in the individual tables are computed as shown in Table 4.1-2.)

- Upgrading and modernization of existing machines: Details not known
- Ongoing projects: Construction of spinning mills in Lattakia and Idleb
- New projects: Most of the investment will be for the expansion of the Lattakia spinning mill, and the construction of the Jableh spinning mill. Investment for Tartus spinning mills accounts for only 8% of the total, although the reason for this is not known.

(3) Manpower plan (Tables 4.1-3 and 4.1-4)

According to the change in manpower composition between 1996 and 2000, the plan envisages an increase in the number of employees with educational background of vocation school or higher. The sectoral plan seems to focus on production support, the rate of increase of which will be set above the average.

(4) Production plan (Table 4.1-5)

Major products and production plans are summarized as follows. The largest increase in production comes from the completion of new cotton spinning mills:

Cotton spun yarn:

From 49,189 tons in 1995 to 120,671 tons in 2000, an increase of 71,482 tons (up 145%)

Cotton print fabrics:

From 1,836 tons in 1995 to 7,658 tons in 2000, an increase of 5,822 tons (up 317%)

Synthetic blended yarns:

From 161 tons in 1995 to 4,144 tons in 2000, an increase of 3,983 tons (up 2,574%)

(5) Marketing plan by domestic and export (Table 4.1-6)

Exports were very small in 1995, mainly consisting of spun yarns, dyed cotton, and underwear. The plan assumes that exports of all the items listed in Table 4.1-6 will be carried out in 2000. Cotton spun yarns export are expected to grow at the highest rate, an increase of 40,000 tons being assumed between 1995 and 2000. Cotton underwear exports are assumed to grow six times.

For domestic sales, spun yarns sales in 2000 are planned to increase 30,000 tons against 1995.

In 2000, cotton spun yarns and waste cotton are expected to show the highest export ratio.

Table 4.1-1 LIST OF THE PRIVATE TEXTILE COMPANIES VISITED

Name of the Company	Fibers used	Products
Chebib Brothers	Syrian Cotton	Knitting, Dyeing, Garment
Bawadekji Tex. Co. Ltd.	Syrian Cotton	Knitting, Garment
Kouefati	Syrian Cotton	Dyeing, Garment, Sales of Jeans
Habi Tex	Syrian Cotton	Knitting, Dyeing, Garment
Syrian Cotton Development	Syrian Cotton	Knitting, Baby's Garment
Industry and Commerce Tissues	Syrian Cotton	Knitting, Garment
Sabbagh & Sharabati	Syrian Cotton	Cotton Spinning, Weaving, Dyeing for Jeans
Khalil and Tujjar Comp.	Syrian Cotton	Knitting, Garment
Abdel Abu Shaar & Son.	Syrian Cotton	Terry Towel
Balalo	Syrian Cotton	Weaving, Dyeing for Denim
Omanzino and Children Co. (Klaseh Industry Zone)	Polyester filament (jacquard)	Weaving
Mohamed Ahmad Hilal and Children's Co.	Polyester filament (jacquard)	Weaving
Samarli & Hamammi	Commission dyeing	Dyeing
Al-Foutkan	Commission dyeing	Weaving, Dyeing
Khodair and Bibi, Company	Commission dyeing	Dyeing (yarn)
Khouhaz Dyehouse	Commission dyeing	Dyeing (yarn)
Shamtex	Commission dyeing	Dyeing
Bahra & Co.	Commission dyeing	Dyeing
Modern Co. for Dyeing and Finishing	Commission dyeing	Dyeing
SEEMA Dyeing and Finishing	Commission dyeing	Dyeing
Sabbagh	Acrylic	Blanket & Velvet
"adidas", RIAD SEIF, MAJED ZAYED & SONS	Imported fabrics	Garment
SAFE BROS.	Imported fabrics	Garment, Suits, Shirts, Children's
Abdel Ahad Bros.	Imported fabrics	Garment, Suits
Assia	Imported fabrics	Garment Men's suits, pants, shirts
Asseel Co. for Industry and Trade	Imported fabrics	Garment, Lady's underwear
"Benetton", (Amal Samha Co.)	Imported fabrics	Garment
Anas Economic Establishment Co. (former name Kalas)	Syrian Cotton Imported fabrics	Garment, Jeans Garment, Men's & Ladies' suits
Lord (Hamwi & Kalai Co.)	Imported fabrics Domestic fabrics	Dyeing, Garment, Jeans
Adel & Hassan Hassanein	Wool, Silk	Gowns, Trousers
Arab Fancy Gowns-Abaya	Colton, Synthetic	Weaving, Arab gowns
Rankoushi & Dakkak	Polyester	Non-woven fabrics, polyester
Modern Ind. & Commercial	Polyester	Texturizing
Wail Y Tabbaa	Polyester, Nylon	Texturizing, Curtains, Ladies underwear

Table 4.1-2 INVESTMENT PLAN OF GOTI (1996-2000)

(1,000 SP in 1995 price)

	1996	1997	1998	1999	2000	Total
Replacement and modernization projects	350,184	1,007,000	1,718,155	2,190,282	2,067,322	7,332,943
Succeeded projects from the last five-year plan	1,973,790	4,144,000	1,260	-	-	6,119,050
New projects	3,125	2,800,000	3,746,586	1,398,296	600,000	8,548,007
Total	2,327,099	7,951,000	5,466,001	3,588,578	2,667,322	22,000,000

Source: The 8th Five-Year Plan from 1996-2000 GOTI

Table 4.1-3 WORKERS STRUCTURE BY VOCATIONAL AND EDUCATIONAL STATUS, GOTI

(Unit: Worker)

Vocational and Educational Status	End of Years	1995	1996	1997	1998	1999	2000	2000/1995
								Increase Rate
1- Universities		573	589	857	967	1,076	1,135	198%
2- Intermediate		1,772	1,824	2,888	3,212	3,734	3,847	217%
3- School Secondary Certificate		627	605	761	954	1,091	1,111	177%
4- Technical School Certificate		699	738	1,287	1,595	1,912	2,017	289%
5- Vocational School		339	353	599	964	1,375	1,563	461%
6- Preparatory School or Less		20,909	20,633	25,931	27,899	29,275	30,311	145%
Total		24,919	24,742	32,323	35,591	38,463	39,984	160%

Source: The 8th Five-Year Plan from 1996-2000 GOTI

Table 4.1-4 WORKER PLAN FOR 1996-2000

Departments	1995 end of year	2000 end of year	Increase 2000/1995 (%)
Administration	1,576	2,332	148%
Production	17,562	28,309	161%
Production assisting departments	4,128	6,853	166%
Services	1,653	2,409	151%
Total	24,919	39,903	160%

Source: The 8th Five-Year Plan from 1996-2000 GOTI

Table 4.1-5 PRODUCTION OF TEXTILES OF GOTI FIVE-YEAR PLAN

Produced Commodity	Unit	1995	1996	1997	1998	1999	2000	Increase 2000/1995	
		(Actual)	(Actual)	(Planned)	(Planned)	(Planned)	(Planned)	Quantity	%
Cotton yarn	Ton	49,189	52,707	71,271	89,561	99,761	120,671	71,482	245
Dyed yarn	Ton	1,174	1,009	2,285	2,083	2,114	2,114	940	180
Cotton wastes yarn	Ton	85	43	85	85	85	85	0	100
Grey cotton fabrics	Ton	14,257	15,171	19,260	20,158	22,243	26,518	12,261	186
Dyed cotton fabrics	Ton	5,161	4,962	5,607	5,667	7,587	8,048	2,887	156
Printed cotton fabrics	Ton	1,836	1,367	4,067	4,524	4,524	7,658	5,822	417
Knitted fabrics	Ton	2,484	2,658	2,934	3,084	3,146	3,247	763	131
Synthetic and blended yarn	Ton	161	473	1,846	3,108	4,144	4,144	3,983	2,574
Blended yarn	Ton	106	75	20	1,724	1,724	1,724	1,618	1,626
Bleached synthetic fabrics	Ton	73	269	405	405	409	409	336	560
Blended cotton fabrics	Ton	5,924	5,925	7,589	8,216	10,286	10,286	4,362	174
Dyed synthetic and blended fabrics	Ton	121	250	405	405	409	409	288	338
Wool and blended yarn	Ton	1,398	1,536	1,823	2,066	2,216	2,216	818	159
Wool fabrics	Ton	19	11	36	36	36	36	17	189
Blended wool fabrics	Ton	198	346	734	734	1,051	1,051	853	531
Dyed wool and blended fabrics	Ton	210	126	954	770	1,087	1,087	877	518
Underwears	DZ	4,740,759	4,639,003	5,222,012	5,514,783	5,611,102	5,769,701	1,028,942	122
Garments	PC	1,256,312	1,184,254	1,468,333	1,457,893	1,496,333	1,508,333	252,021	120
Socks	DZ	202,109	205,886	256,750	274,557	326,597	326,597	124,488	162
Wool carpets	M ²	489,879	466,052	535,015	696,100	696,606	696,606	206,727	142
Natural silk yarn	Ton	3	3	3	7	7	7	4	233

Source: The 8th Five-Year Plan from 1996 to 2000 (ANNEX-7)

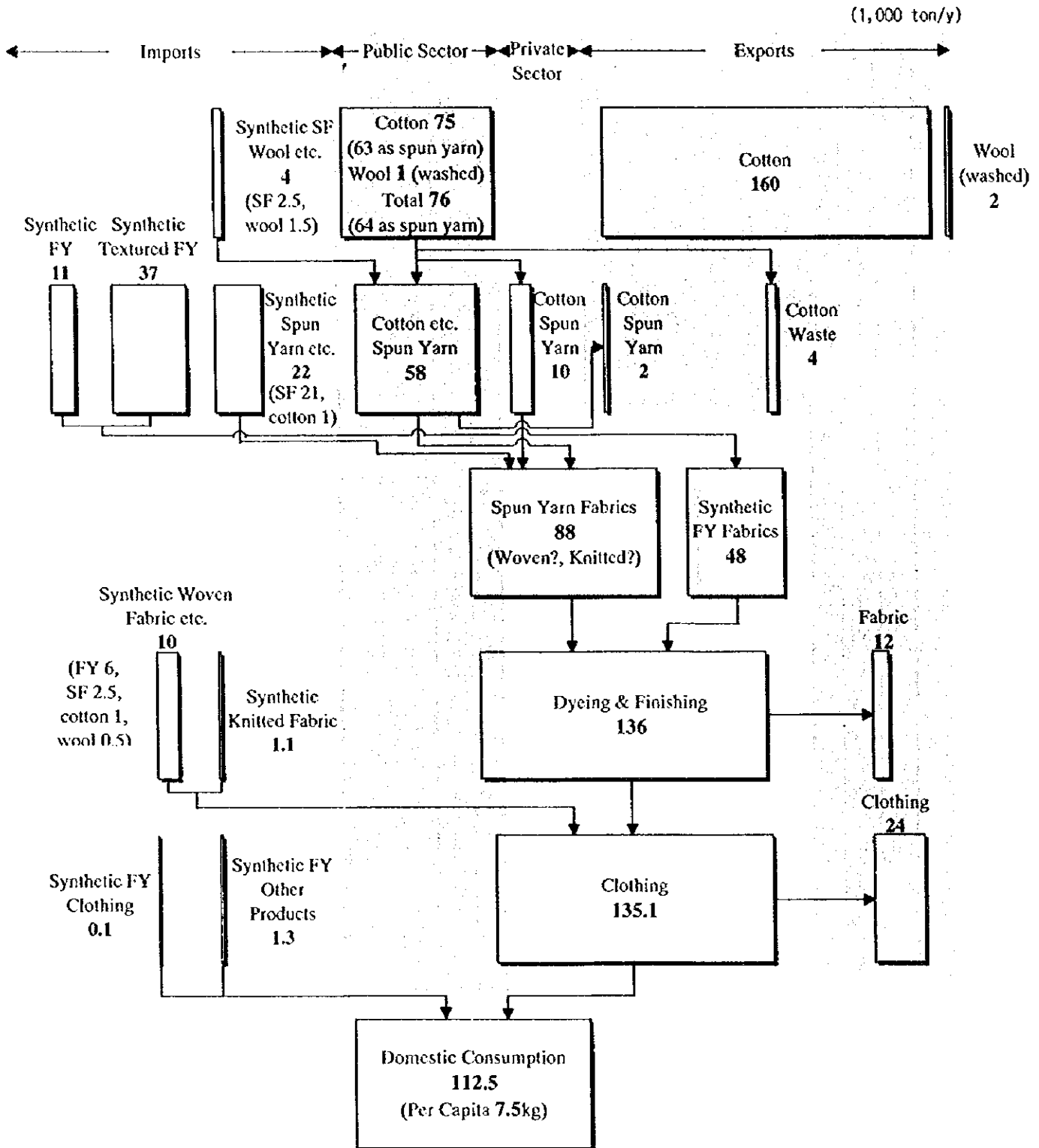
Table 4.1-6 LOCAL SALES AND EXPORTS BY PRODUCTS 1996-2000 (GOTI)

	Unit	1995			1996			1997			1998		
		Local	Export	Total	Local	Export	Total	Local	Export	Total	Local	Export	Total
Cotton yarn	Ton	33,681	6,307	39,988	30,944	5,428	36,372	54,583	7,350	61,933	50,721	29,000	79,721
Cotton wastes	Ton	1,943	0	1,943	1,377	2,420	3,797	2,925	335	3,260	1,137	2,954	4,091
Grey cotton fabrics	Ton	3,515	0	3,515	6,069	0	6,069	5,543	181	5,724	6,321	181	6,502
Blended cotton fabrics	Ton	1,849	0	1,849	1,559	0	1,559	1,164	75	1,239	1,109	130	1,239
Dyed cotton fabrics	Ton	4,269	22	4,291	4,385	63	4,448	4,504	150	4,654	4,504	150	4,654
Printed cotton fabrics	Ton	1,593	0	1,593	1,101	0	1,101	3,453	166	3,619	3,367	252	3,619
Underwears	Dozen	823,646	357,013	1,180,659	790,388	180,566	970,954	1,230,892	200,000	1,430,892	1,244,742	200,000	1,444,742
Total (Value)	*	9,388,654	1,189,130	10,577,784	8,660,812	952,456	9,613,268	14,834,339	1,377,696	16,212,035	15,476,715	4,790,929	20,267,644

	Unit	1999			2000			Increase (2000-1999)			Export ratio in 2000 (%)
		Local	Export	Total	Local	Export	Total	Local	Export	Total	
Cotton yarn	Ton	56,975	31,328	88,303	63,851	46,312	110,163	30,170	40,005	70,175	42.0
Cotton wastes	Ton	1,687	3,554	5,241	3,987	5,254	9,241	2,044	5,254	7,298	56.9
Grey cotton fabrics	Ton	6,321	181	6,502	5,804	181	5,985	2,289	181	2,470	3.0
Blended cotton fabrics	Ton	1,109	130	1,239	1,109	130	1,239	-740	130	-610	10.5
Dyed cotton fabrics	Ton	6,574	150	6,724	6,933	540	7,473	2,664	518	3,182	7.2
Printed cotton fabrics	Ton	3,367	252	3,619	5,079	1,812	6,891	3,486	1,812	5,298	26.3
Underwears	Dozen	1,273,874	200,000	1,473,874	1,325,007	200,000	1,525,007	499,361	-157,013	342,348	13.1
Total (Value)	*	17,136,162	5,119,288	22,255,450	18,430,018	7,839,646	26,269,664	9,041,364	6,650,516	15,691,880	29.8

* Value : 1,000SP in 1995 prices

Figure 4.1-1 PRODUCTION, IMPORT AND EXPORT OF TEXTILE INDUSTRY (1)



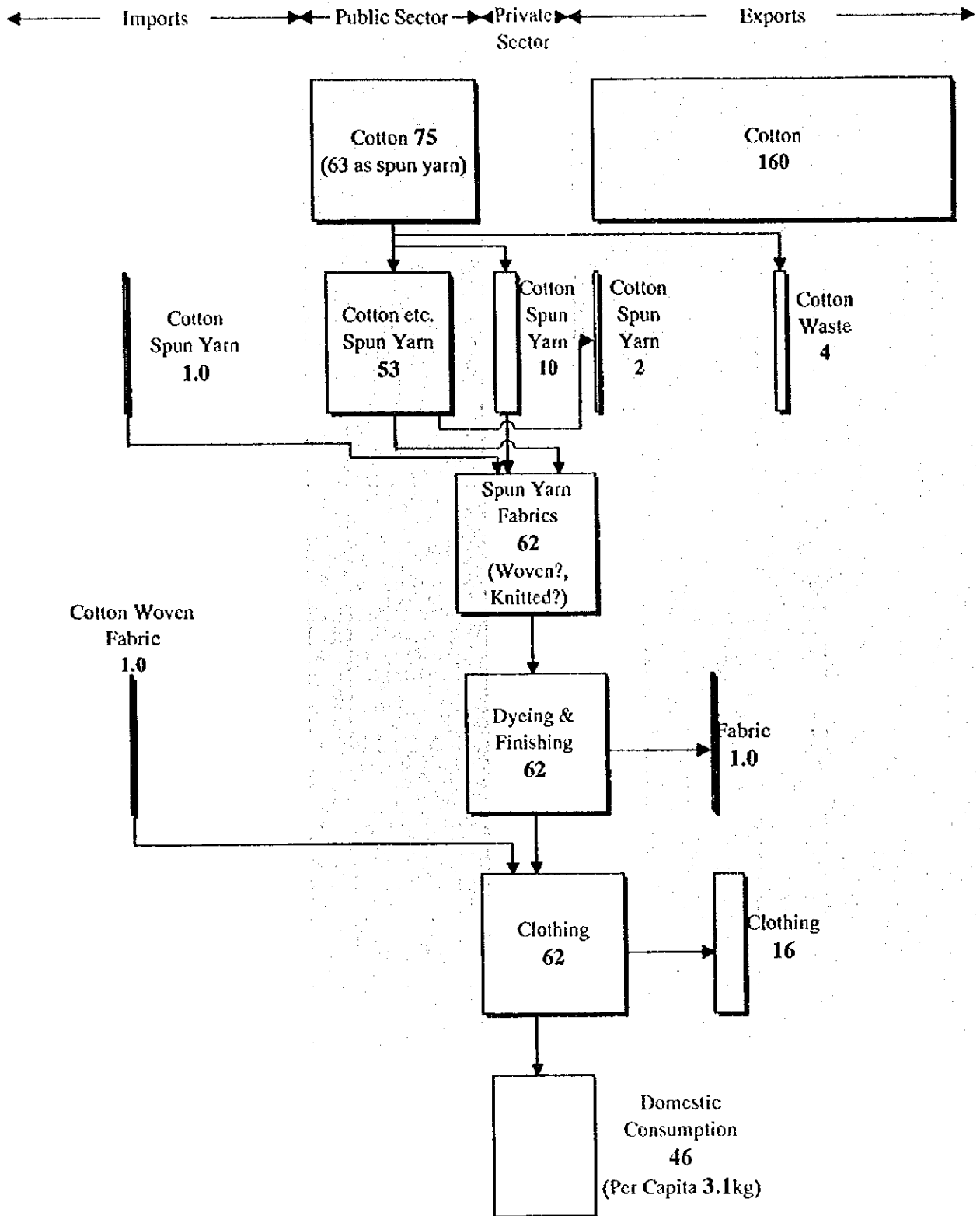
Source : Import of textiles to Syria based on exporting countries statistics

Note : 1) "Synthetic" includes small quantity of rayon.

2) The figures are shown approximately in "Fiber equivalent" not actual weight.

3) The figures are the estimate as of 1996.

Figure 4.1-2 PRODUCTION, IMPORT AND EXPORT OF COTTON (2) (1,000 ton/y)



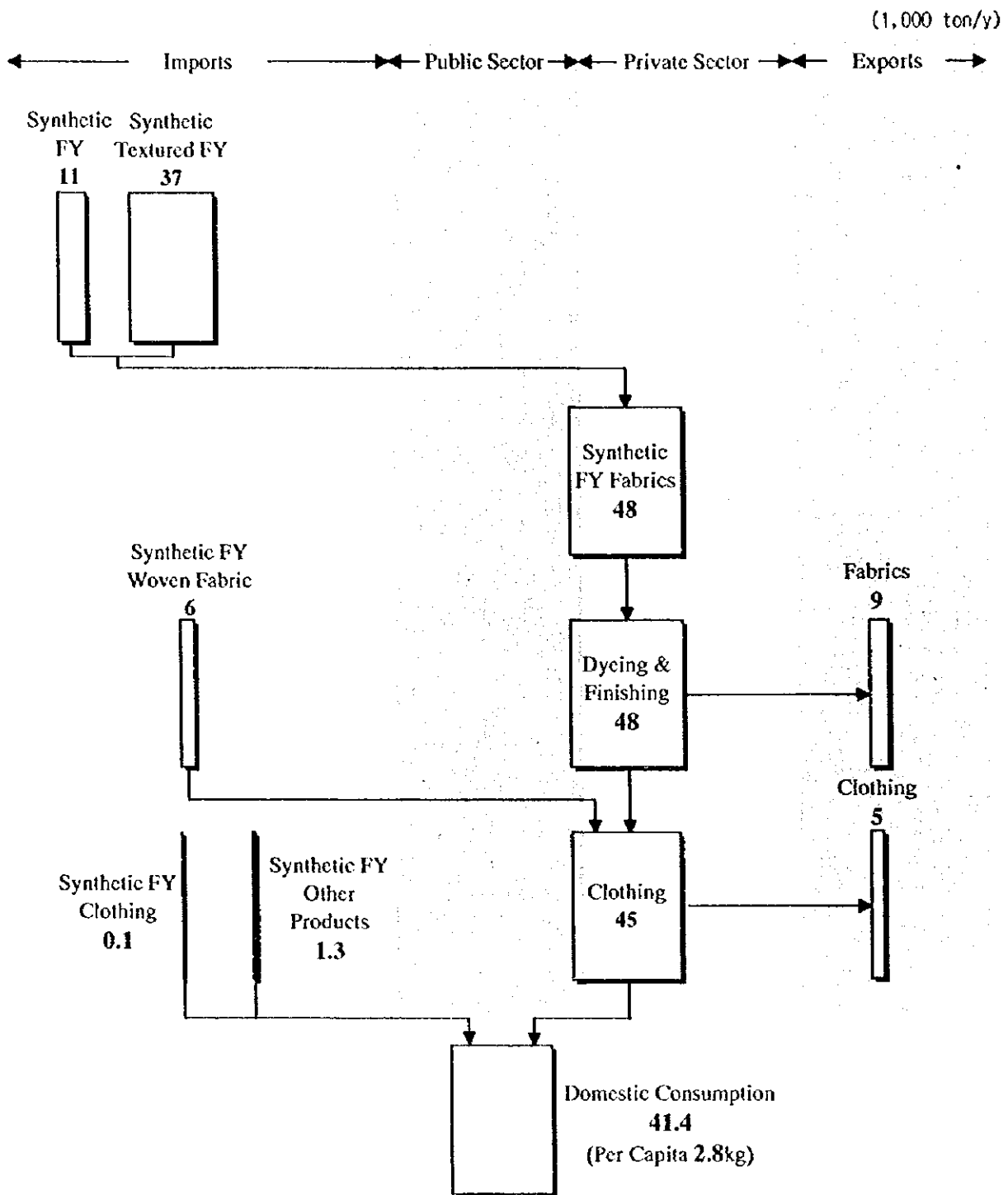
Source : Import of textiles to Syria based on exporting countries statistics

Note : 1) "Synthetic" includes small quantity of rayon.

2) The figures are shown approximately in "Fiber equivalent" not actual weight.

3) The figures are the estimate as of 1996.

Figure 4.1-3 PRODUCTION, IMPORT AND EXPORT OF SYNTHETIC FY (3)



Source : Import of textiles to Syria based on exporting countries statistics

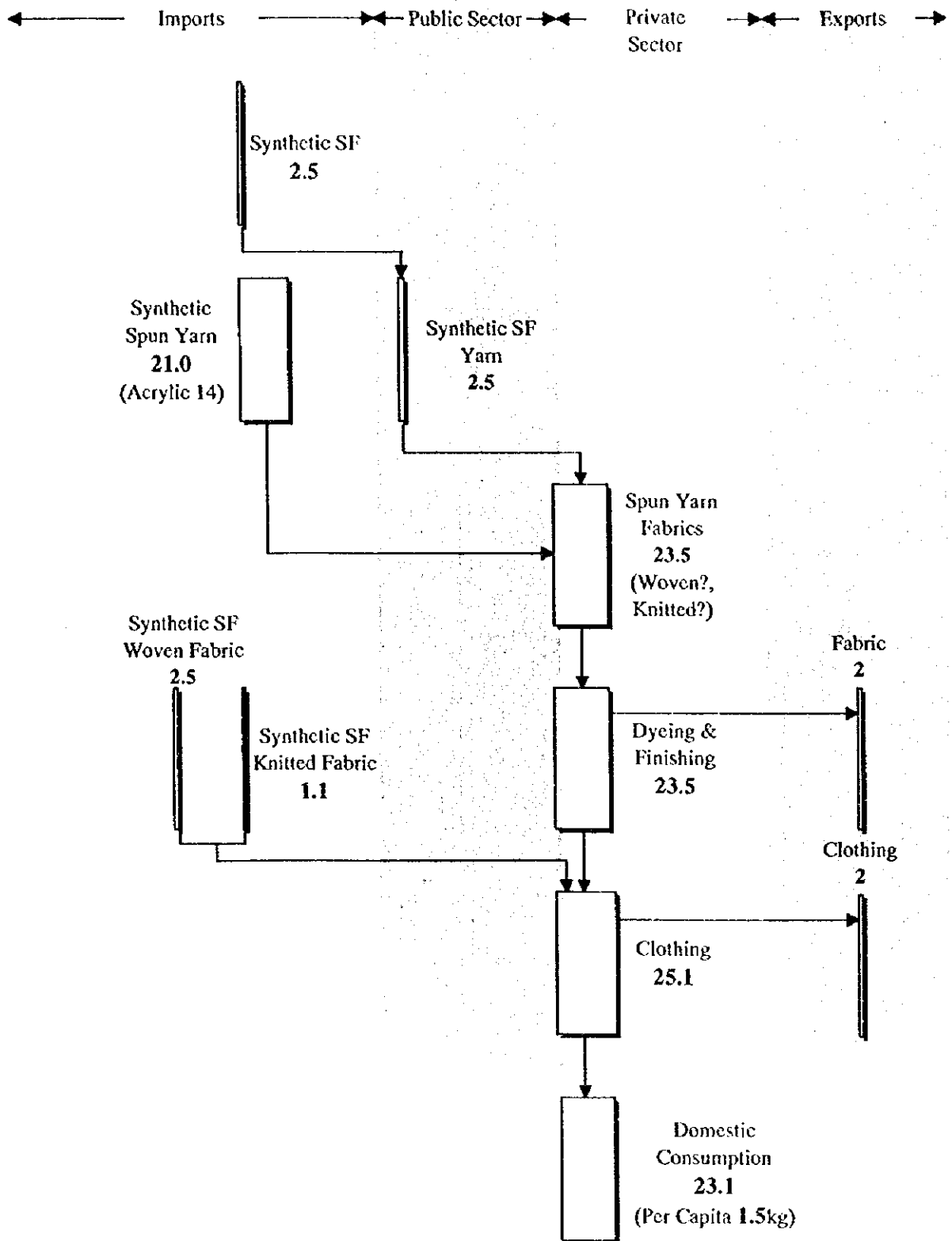
Note : 1) "Synthetic" includes small quantity of rayon.

2) The figures are shown approximately in "Fiber equivalent" not actual weight.

3) The figures are the estimate as of 1996.

Figure 4.1-4 PRODUCTION, IMPORT AND EXPORT OF SYNTHETIC SF (4)

(1,000 ton/y)



Source : Import of textiles to Syria based on exporting countries statistics

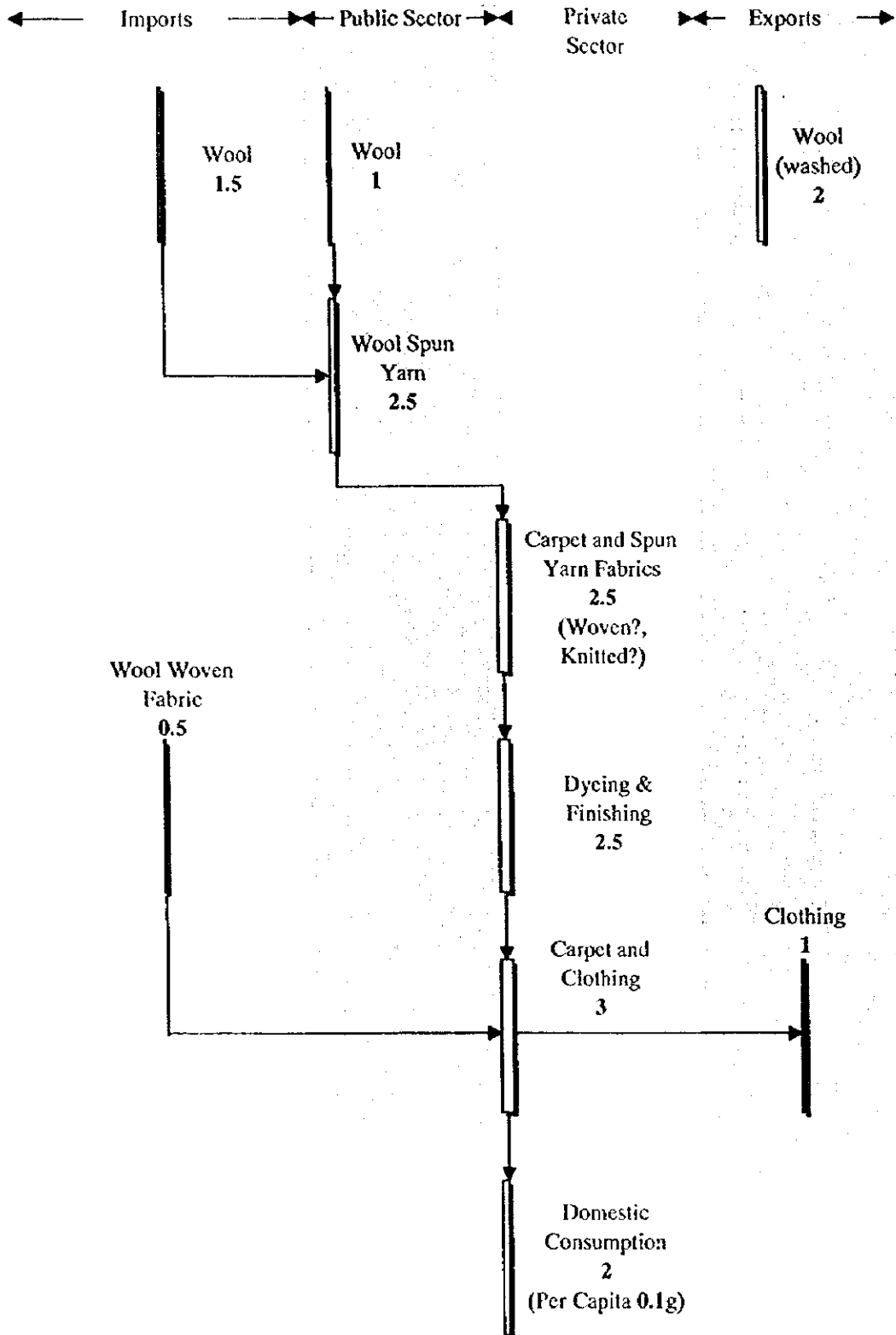
Note : 1) "Synthetic" includes small quantity of rayon.

2) The figures are shown approximately in "Fiber equivalent" not actual weight.

3) The figures are the estimate as of 1996.

Figure 4.1-5 PRODUCTION, IMPORT AND EXPORT OF WOOL (5)

(1,000 ton/y)



Source : Import of textiles to Syria based on exporting countries statistics

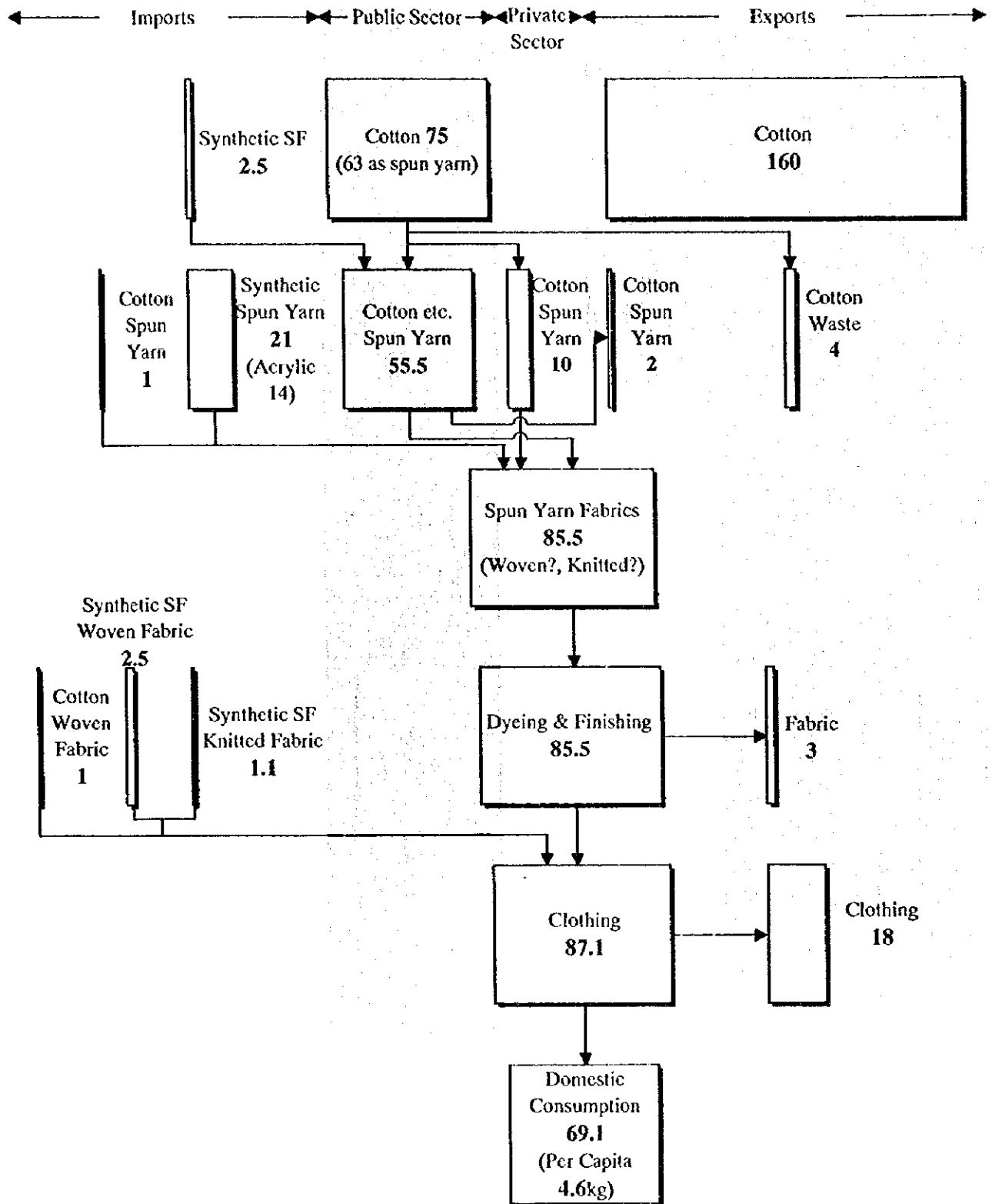
Note : 1) "Synthetic" includes small quantity of rayon.

2) The figures are shown approximately in "Fiber equivalent" not actual weight.

3) The figures are the estimate as of 1996.

Figure 4.1-6 PRODUCTION, IMPORT AND EXPORT OF COTTON AND SYNTHETIC SF (6)

(1,000 ton/y)



Source : Import of textiles to Syria based on exporting countries statistics

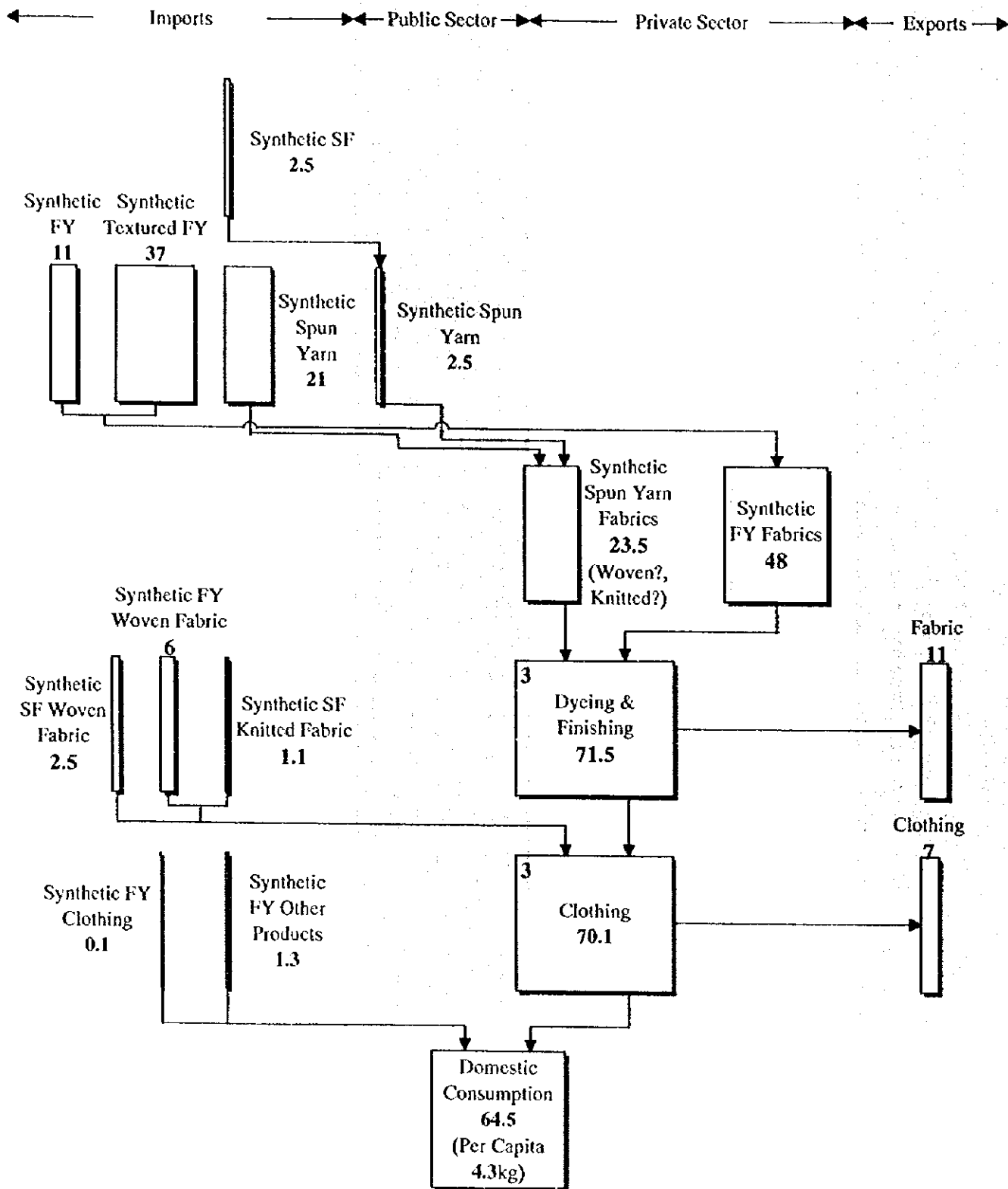
Note : 1) "Synthetic" includes small quantity of rayon.

2) The figures are shown approximately in "Fiber equivalent" not actual weight.

3) The figures are the estimate as of 1996.

Figure 4.1-7 PRODUCTION, IMPORT AND EXPORT OF SYNTHETIC SF AND FY (7)

(1,000 ton/y)



Source : Import of textiles to Syria based on exporting countries statistics

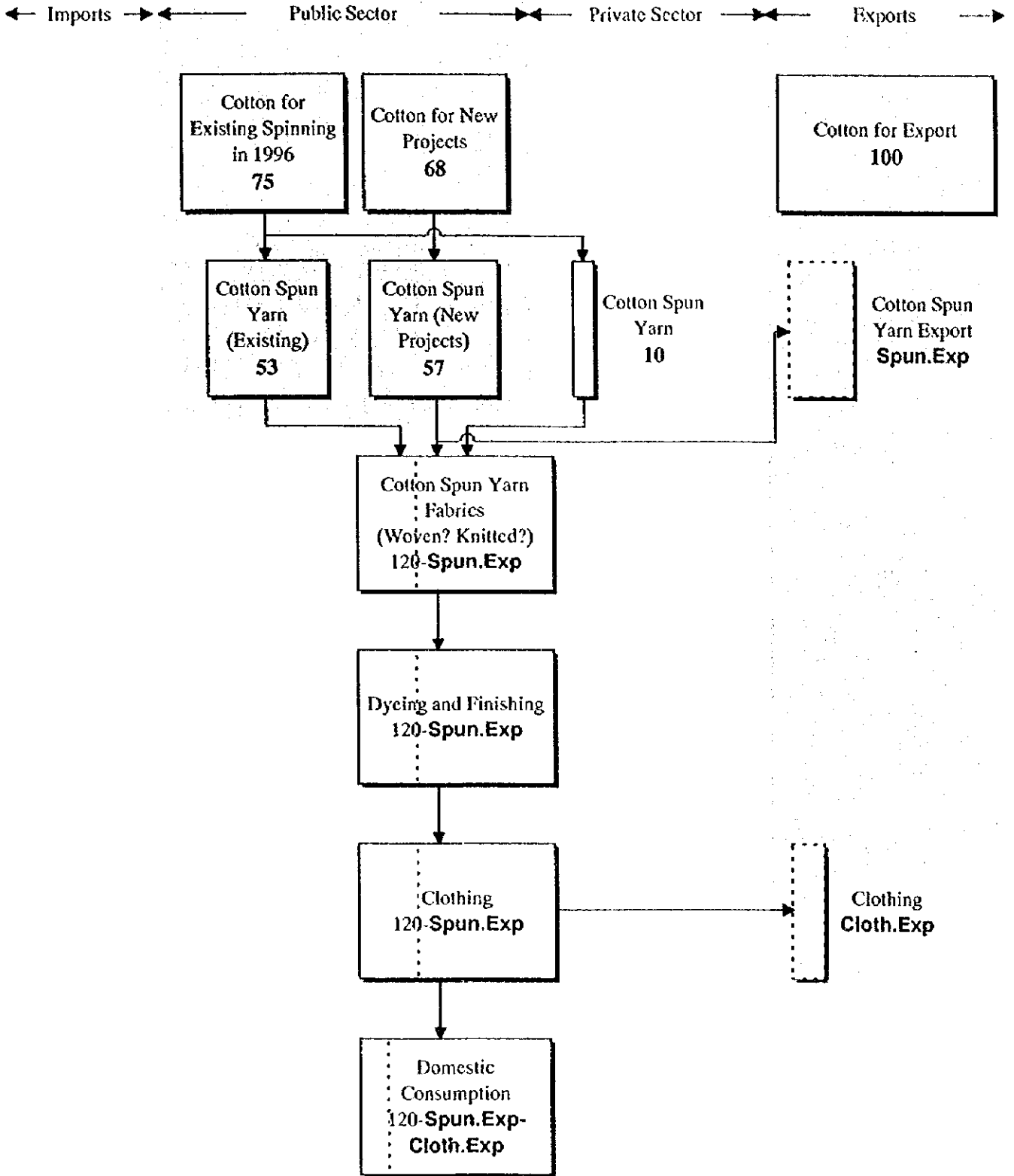
Note : 1) "Synthetic" includes small quantity of rayon.

2) The figures are shown approximately in "Fiber equivalent" not actual weight.

3) The figures are the estimate as of 1996.

Figure 4.1-8 PRODUCTION, IMPORT AND EXPORT OF COTTON in 2000

(1,000 ton/y)



Source : Import of textiles to Syria based on exporting countries statistics

Note : 1) "Synthetic" includes small quantity of rayon.

2) The figures are shown approximately in "Fiber equivalent" not actual weight.

3) The figures are the estimate as of 1996.

4.2 Present Situation and Problems of Textile Fibers (Cotton, Wool and Silk)

4.2.1 Cotton Fiber

4.2.1.1 Trend of cotton production in Syria

(1) Before World War II

Syrian raw cotton is regarded as a cash crop and its earning of foreign currency rank next to oil exportation. It is said that cotton cultivation was introduced into Syria from India about 2000 years ago. Since then, the raw cotton production in Syria has repeated ups and downs through the eras of Arabic and Mongolian aggression as well as the period of Russian rule, but a full scale production was realized for the first time at the beginning of this century. From 1900 and 1912, the cotton production in Syria, based on lint cotton, maintained the level not exceeding 1,500 tons per year.

(2) Between World War II and 1970's

Though annual raw cotton production was at a level of 6,000-7,000 tons during the second world war years, it grew to 48,000 tons by 1951 with an associated increase of the acreage to 217,000 hectares (Yield: 221kg/hectar), which was 9 times greater than that of 1948. Although cotton production recorded an historical high of 180,000 tons in 1965, it dropped suddenly to 126,000 tons in 1967. In 1972, it recovered to a level of 163,000 tons, but in average, it maintained around the 150,000 tons level through to the end of the 1970's.

(3) Irrigation

Though Syrian cotton farming in the past had been characterized by the non-irrigation cultivation for many years in the past, the irrigation cultivation surpassed the old method for the first time in 1953 the non-irrigation one. Since then, non-irrigation cotton farming decreased year by year and it became less than 2 % of the whole Syrian cotton production by the end of the 1970's. On the other hand, the area under irrigation for cotton farming increased rapidly during the 1960's and reached 223,000 hectares by 1965. It then kept on increasing, reaching, 237,000 hectares in 1969, then decreased continuously to 175,000 hectares in 1997.

(4) Yield

Yield (crop of lint cotton per hectare) by irrigation farming rose from 477 kgs on average between 1955 and 1959 to a peak of 745 kgs in 1964. Thereafter, it showed a decreasing tendency and fell to 601 kgs by 1969. It increased again, however, reaching a new record high of 896 kgs in 1976.

The changes in Syrian cotton production, acreage and yield between the 1950's and 1970's, are shown in Table 4.2-1.

(5) Between the 1980's and present

The area for irrigation cotton farming between 1980 and 1991 was around 140,000-170,000 hectares. And cotton production also recorded around 120,000-190,000 tons in the same period. After 1992/93, due to an increased cultivation area and improved yield, cotton production reached 200,000 tons mark for the first time in history. Table 4.2-2, and Figure 4.2-1 represent the changes in Syrian cotton production, acreage and yield respectively.

(6) Future estimate

It is predicted that the production of cotton will increase by 1.0-2.0% annually and a maximum output of 275,000 tons is foreseen by 2010, which is 10% above 1996/97 level (Syrian Cotton Bureau estimates 250,000 tons in 1997/1998). But, many issues such as raising funds for completion of long-term projects for irrigation development including construction of network of water supply channel and pumping equipment and coping with the international negotiations relating to the issue of water distribution of the Euphrates must be overcome in order to secure the irrigation water necessary for the production increase of cotton in the future.

4.2.1.2 Export and domestic consumption of raw cotton

About 70% of Syrian raw cotton is exported and the balance is currently for domestic demand. Table 4.2-3 shows the export quantity of raw cotton by destination.

The shipments of Syrian cotton to domestic and export markets are shown in Table 4.2-4. Shipments to the domestic market and export markets are planned at 68,000 tons/year and 190,000 tons/year respectively in 1996/1997.

Table 4.2-5, Table 4.2-6 and Figures 4.2-2 to 3 show the position of Syrian cotton (export and production) in the world as of March, 1997 (data by International Cotton Advisory Committee : ICAC). According to this, Syria is ranked 8th important raw cotton producer among 70 cotton producing countries in the world and is mainly exporting to European countries. The share of exports to Italy is large, due to the low freight costs.

4.2.1.3 Quality of Syrian raw cotton and production district

Syria has developed a superior quality cotton over its lifetime in cotton production. It had quite a strong resistance under the susceptible environment to such diseases as wilt, damping off or black arm, which enables it to attain high yield. In 1974, an epoch-making Aleppo 1 strain was successfully developed. Compared to the American cotton, it had better fiber uniformity and equivalent micronaire, while fiber length was a little shorter. Yield of Aleppo 1 marked the high point in Syrian's history of cotton production. This success triggered the subsequent development of Aleppo 40, Aleppo 33 and Aleppo 45. At present Aleppo 40, Deir Ezzor 22, Rakka 5, Aleppo 33/1 are being cultivated as standard seeds.

As seen in Table 4.2-7 which summarizes production by variety, Aleppo 40 accounts for 60% of the total, while Aleppo 33/1 representing the highest quality only has 12% of the total. Different varieties produce different fiber characteristics (e.g., length, fineness, and whiteness) which determine the final applications or products. The micronaire of Aleppo 40 ranges between 4.8 and 5.0 (Cotton Bureau data, based on analysis in Japan), and is suitable for towel production. Aleppo 33/1 consists of long and fine fibers, making it suitable for medium- and high-grade cotton underwear, casual shirts (knit), and medium-grade shirting fabrics using combed yarn of counts Ne.40 and 50.

Strain 9 being developed in Syria (tentative name) has equivalent or better quality than Aleppo 40, with fineness of 4.3, making it suitable for regular knit products (mainly low-grade underwear and T-shirts) using carded yarn Ne.30 or less or fabrics using medium or higher yarn counts (workwear, jeans, etc.). Other cotton varieties have equivalent fineness to Aleppo 40, while their overall quality is equivalent or less, making them suitable for towel and low-grade products.

In conclusion, Syrian cotton can be used for a variety of applications according to fiber characteristics. At the same time, its fiber length is limited which makes it unsuitable for high-grade cotton clothing, the exception being Aleppo 33/1.

The production areas of cotton crops in Syria can be divided roughly into 2 districts. One is an area along the Euphrates river including the three most important states; eastern Deir Ezzor, Rakka and Hassakeh, where approximately 75% of total Syrian cotton is produced. The cultivation areas are scattered along the Euphrates's main stream and its branches and are irrigated by water from the Euphrates, dams or water reservoirs.

The other areas are the Aleppo plain and the area along the Orontos river, where 25% of Syrian cotton is produced. The Aleppo plain is a fertile area centered by Aleppo city and is located in the north-west of Syria. The place along the Orontos includes the Homs and Hama provinces and is irrigated by underground water and water from small rivers. The water source of this area is mainly from rainfall in winter or snows in the mountains.

The growing period and yield of raw cotton are as follows:-

- Northern area : 190 days : 1,050-1,150 Kg/Ha
- Eastern area : 185 days : 850-950 Kg/Ha
- North-eastern area : 190days : 1,100-1,200 Kg/Ha

4.2.1.4 Quality grade Indication and price of Syrian cotton

(1) Quality grade indication of cotton

The qualities of cotton are expressed as follows and the orders to Cotton Marketing Organizations are made by using these grade indicators.

For example, "13xxx" means as follows;

1: Quality (Impurity, Color, Maturity, Micronaire, Strength)

3: Length (2: 1-1/8, 3: 1-3/32, 4:1-1/16)

x: Cleanness (xxx: very clean, xx: clean)

Many quality grades exist as follows:

12

13 xxx, 13 xx, 13 x, 13

14 xxx, 14 xx, 14 x, 14; 23, 33, 43, 53

(2) Quality grade indication and domestic price of Syrian cotton

Based on the above rule for quality indication, a combination of grade and length determines cotton prices, which can be compiled into a comprehensive price list. Prices bear no relation to the varieties, however, when high-grade cotton (e.g., long staple) is specified by the buyer, Aleppo 33/1 is inevitably selected and the purchase price becomes higher.

There are five grades (extra, zero, one, two, three), each of which is basically divided into four classes.

This year's base price is 84SP/kg, on which prices are determined according to grade and length.

Domestic prices are determined on the basis of production cost, regardless of the international market price. Thus, when the international market price rises, the domestic price declines in relative terms, and vice versa.

(3) Export price of cotton

Exported cotton is sold at an international market price which fluctuates every day. The cotton Bureau prepares specifications for export cotton, which are indicated by a combination of grade and length. Strength and variety (e.g., Aleppo 33/1) are not used.

(4) Comparison of export and domestic prices of Syrian cotton

Many textile companies blame high domestic cotton prices for their lack of competitiveness. When the Study Team asked how high they were, the general response was that the domestic price was higher than the export price from Syria or the international market price. However, a foreign company which purchases Syrian cotton at the FOB price has to pay for transportation, tax, insurance, warehousing, and other costs separately. Thus, the FOB price is calculated to be higher than the domestic price. (As cotton imports are banned, textile companies have no import data.)

The export price from Syria as of August, for instance, is indicated as US ¢ 82/kg CIF Liverpool (the declaration price in the Cotton Outlook magazine published in Liverpool). Transportation costs to major destinations (only freight, not including insurance) are shown below:

Italy (Lattakia - Ravenna) :US ¢ 3/kg (SP1.4/kg)

Germany (Northern Europe) :US ¢ 7.5/kg (SP3.4/kg)
The United States :US ¢ 10/kg (SP4.5/kg)

When destined for Northern Europe, therefore, the shipment price from Syria is approximately US ¢ 3/lb (US ¢ 7.5/kg) lower than US ¢ 82/lb (US\$1.81/kg), becoming US ¢ 79/lb.

On the other hand, the base price for the domestic market is SP 84/kg (shipment price of ginning), and the delivery price at the mill is the base price plus the transportation cost, production tax (9%) and other related expenses.

The above analysis refutes the argument that the domestic price is much higher than the export price by simply comparing them without consideration to transportation and warehousing costs, tax, and other expenses, which impacts must be assessed carefully for accurate comparison. The domestic price is also determined on the basis of production cost, regardless of international market price trends, so that price competitiveness of local manufacturers in the international market is largely affected by the international market price.

Finally, there are several local companies which successfully export products made from Syrian cotton, which refutes the argument that Syrian cotton export companies do not have price competitiveness because the domestic price is higher than the international price.

4.2.1.5 Quality and evaluation of Syrian cotton

Aleppo 33/1 is a cotton seed of an excellent quality with the staple length which enables the users to spin up to Ne 50 yarn count. The captioned problem is described in detail in the following;

(1) Results of laboratory test

The laboratory tests on Syrian raw cotton collected at the site were carried out in Japan and the results are summarized in ANNEX-2. The evaluation of such results (HVI test) is as follows:-

- 1) Aleppo 33/1 (received from Cotton Bureau, Aleppo)
 - a) Leaf Trash Content (leaf grade) was comparatively low;

- b) Fiber Length was 1-5/32 inch and was long enough to spin Ne 40/50 yarn
- c) Fiber Strength was measured as 34gf/tex which is enough as Ne 40 yarn has usually around 30 gf/tex.
- d) Micronaire showed 4.5 which also fits to spin more than Ne 30 yarn
- e) Whiteness was good at 80.9 and Yellowishness was 8.1 (9-10 is yellow). A Color Grade of 21-1 corresponds to the highest grade, Strict Middling (SM).
- f) Estimated Lea strength (SBr) of 234 was enough. (SBr 210/220 or more is commonly required for spinning Ne 40.)

2) Aleppo 40 (received from Cotton Bureau, Aleppo)

- a) Leaf trash content was higher and Fiber Length was shorter (1-3/32) than Aleppo 33/1
- b) Fiber strength was 30, weaker than Aleppo 33/1, but judged as acceptable
- c) Micronaire was 5.0 which is suitable for spinning medium and coarse count yarn (less than Ne30)
- d) Whiteness and yellowishness were normal at 77.4 and 8.4 respectively. A Color grade was 31-1 which was judged as Middling (M) class
- e) Estimated lea strength (SBr) of 205 was judged as weak. 210 or more is desirable

3) Raw cotton samples obtained from existing mills (4 kinds from Al Furat Spinning Co. Unit No. 1 and No. 2, Hassakeh Spinning Project, Hama Cotton Yarn Company)

- a) Leaf Trash Content of Al Furat was high (especially No. 1) while that of Hassakeh and Hama was low
- b) Only Hama' raw cotton showed longer fiber length (1-5/32) suitable for Ne 40 yarn and others were shorter (1-2/32-1-4/32) suitable for less than Ne 30 yarn
- c) Fiber strength of both Al Furat No. 2 and Hassakeh was weak as less than 30
- d) Micronaire of Hama was 4.6 and others were more than 5.0, thus showing that the former is for the middle and fine count yarn and latter for the coarse and middle
- e) Whiteness were all ordinary but Yellowishness of Hassakeh was high. As for a Color grade, all were Middling (M)(31-1), except for Hama's 41-1 which is categorized as Strict Low Middling (SLM) due to its hue dullness
- f) Though Hama's SBr was sufficient, the lea strength of the others were inadequate, and would adversely affect the strength of the yarn ;

(2) Fiber strength and leaf trash

From the above observation, it is judged that the raw cotton of Hama is Aleppo 33/1 and others are either Aleppo 40, Deir Ezzor 22 or Rakka 5. A sample of Aleppo 33/1 showed good characteristics in terms of color and micronaire as well as character. Fiber length is adequate (1-3/32 or more) and neps are few which is also good. It is also good that stickiness seems to be low. But, fiber strength is lower than American and Australian cotton (Aleppo 40 even appears to tear by hand). In 1996, a certain spinning company in Japan tested 16 lots of Syrian cotton offered samples and found that all of them had less fiber strength (24-26 gf/tex). Due to this reason, they did not buy that Syrian raw cotton. Corresponding to the current spinning machines rotating at high velocity, the transaction of raw cotton has now entered in an era of competition by the quality of raw cotton which enable the machine to spin in high speed. Therefore, lower fiber strength is becoming quite a critical problems.

On the other hand, the samples of raw cotton, obtained from the existing spinning mills were found to be comparatively leafy which would cause troubles of trash in the spinning process. This is graded as Middling or Straw Plus which often restricts the spinning, enabling it to spin at best Ne 20 yarn.

(3) Residual sugar content

Other than the above data and results, there is a problem of sugar content in Syrian raw cotton. According to the laboratory test of 16 sample lots offered in Japan, there were 10 lots having sugar content (SC) of 2-2.5, and 3 lots of 3.0, out of 16 lots sampled. (SC: 1.. zero, 2.. barely exist, 3.. exist, 4.. exists quite a lot, 5.. abundant). It is inferior to American or Australian cotton which has SC of 1.5 in average. High SC gives rise to a sticky cotton. When the stickiness is high, cotton sliver winds round the roller sometimes in the course of spinning in a hot area. But, it is all right in Europe (Syrian cotton's main destination), thanks to the chilly weather. The cause of SC can be either noxious insects or spontaneous generation. As cotton ripens, organic matter (sugar) as part of the composition of raw cotton changes to cellulose. However, when the hours of daylight are insufficient or raw cotton is picked up under immature condition, sugar is left. The problems of excessive SC of Syrian raw cotton was a

temporary phenomenon and this problem has now been resolved according to the Syrian authorities.

(4) Honeydew contamination

Syrian cotton is not an exception as to the problems of cotton contamination, i.e. contamination by foreign matter and honeydew contamination (honeydew's adhesion). But honeydew in Syrian raw cotton is relatively small, according to the yearly survey by International Textile Manufacturing Federation (ITMF).

Sticky cotton caused by the honeydew contamination which occurs in Sudan, Middle and South America and many other cotton producing countries is now a big problems in the spinning business. As for this problem, although further research and investigation are needed, a common consensus shall need to be established among cotton producing countries cored by the International Cotton Advisory Committee (ICAC), International Textile Manufacturing Federation (ITMF) and cotton consuming countries.

(5) Contamination by foreign matter

As for the contamination by foreign matter, there is no signs of improvement throughout the world. According to the investigation of the ITMF, the contamination degree of Syrian cotton (38 sample) was announced as 14% (Moderate 9%, Serious 5%). This is ranked middle among 57 regions in the world. In any case, contamination of Syrian cotton is a serious problems. It is reported that European buyers of Syrian cotton yarns sometimes complain about dyeing specks appearing in the dyeing process caused by the yarn. These claims subsequently obstruct the expansion of yarn exports because knitters and garment companies in Europe are especially sensitive about quality claims.

(6) Countermeasures against contamination

In Syria, the case is mostly the invasion of foreign matters into the cotton when hand picking of the raw cotton by farmers. The main foreign matters are colored strings and fabrics, jute/hessian, pieces of plastic film, rubber and metal. Though the Syrian government is taking countermeasures by way of instruction and education to the farmers, application of penalties in case of violation, and suggestions to the users on installing metal detectors at the blow room process, this problem has not yet been successfully eliminated to date.

Users of raw cotton, need to install Foreign Material Detectors (FMD) to protect themselves. Other than FMD, there is a new device called "Opti-scan" which Zellweger developed at the end of 1996. Opti-scan, using a camera, prevents the blow room process from passing colored fibers. But, it has limited ability, as 20% of colored fibers which are inside the layers are not detected or discovered. Zellweger also developed a device called "Yarn Clearer" which cuts yarns whenever it finds different colors of fibers. These new devices should also be employed by users as counter measures against contamination.

(7) Conclusion

Aleppo 33/1 is a cotton seed of excellent quality which enables the users to spin up to Ne 50 yarn counts. It is preferable to increase its acreage, however, if this is difficult, it is desirable to develop other seeds of high quality. The cotton Bureau is now attempting to develop a new variety called "Strain 9" tentatively.

4.2.1.6 Cotton policy by Syrian Government

(1) Governmental organization

Raw cotton cultivation and its delivery up to the ginning factory are carried out by the private sector, but practically it is controlled by the government. Namely, all cotton cultivators are requested to obtain a license or a permit by the Ministry of Agriculture and Agrarian Reform. Furthermore, a raw cotton purchase price is announced prior to seed sowing and it is guaranteed throughout the season. Purchasing of seed cotton, production research, ginning, grading, domestic sale, export, distribution of cotton seeds and fertilizers and finance are handled by governmental agencies.

1) Supreme Agricultural Council (SAC)

The head of SAC is the Prime Minister, and it sets the price of raw cotton and the purchase price by government.

2) Cotton Congress

It consists of the Minister of Agriculture and Agrarian Reform and 100-120 high officials and holds a congress once a year. Production of the previous season,

actual results of cotton development and so on are reviewed. It is responsible for determining a cotton policy for the forthcoming year.

3) Cotton Bureau

It is responsible for research and development of raw cotton. It plays an important role in the improvement of yield and upgrading the quality of Syrian cotton.

4) Cotton Marketing Organization (CMO)

This organization buys seed cotton at gin point, as well as being responsible for ginning, grading, storing, selling, marketing, and researching of raw cotton in the country.

5) General Organization for Agricultural Mechanization

This is quite a new organization which has as its role the mechanization of production of raw cotton and to improve its yield with the collaboration of the Cotton Bureau.

6) Agricultural Cooperative Bank of Syria

It sells cotton seeds, fertilizer, insecticide and bags to farmers and provides them with financing including subsidies for production. It also pays the price for raw cotton to the farmers on behalf of CMO.

(2) Governmental policy

Importation of cotton is prohibited in Syria. The real cost (production cost) and the purchase price of raw cotton are also decided by government. In 1996, SP. 25.54/Kg and SP. 30.75/Kg were the real cost and the purchase price respectively, according to the Cotton Bureau. The government has been purchasing at an attractive price since 1988 in order for farmers to keep their interest in cotton cultivation. The yearly movement of the purchase price from 1991 was as follows:-

- 1991	SP. 18.00
- 1992	SP. 18.50
- 1993	SP. 19.50

- 1994	SP. 24.00
- 1995	SP. 23.23

Source: Statistical Abstract, 1996

4.2.1.7 Competitiveness of Syrian cotton In the world

(1) Price competitiveness

In order to check on the price competitiveness of Syrian raw cotton, its price was compared with an average offered price of Index A (CIF North Europe Quotations for Raw Cotton) which was calculated on the basis of the cheapest 5 items from 14 equivalent raw cottons with fiber length of 1-3/32. (Data obtained from "Cotlook Indices" of Cotton Outlook) The result is shown in Table 4.2-8 and Figure 4.2-4.

According to the above comparison, the price of Syrian cotton is always higher by 1-5 cents/lb than the average offered price of Index A. Although it is lower than North, Middle and South American or Australian cotton, it is higher than or equivalent at worst to the raw cotton of neighboring countries such as Greece, Turkey, Pakistan or Africa.

When the government purchase price in 1996, SP 30.75/kg mentioned in the previous section, is converted into US dollar, it becomes 27.95 cent/pound (conversion rate: SP 50 = US\$ 1.0), which is considerably cheaper than the production cost of US cotton. If we consider a further cost reduction in Syrian cotton production through future mechanization of farming, it is anticipated that Syrian cotton will maintain its competitive power in the marketplace.

In the near future, the price competitiveness will be a key factor for Syrian cotton to promote exports to Southeast Asia and Japan in addition to the European countries. These Asian countries tend to use less contaminated cotton from America or Australia. These have also geographical advantages, therefore, without the merit of low price, Syrian cotton will not penetrate into this Asian market.

(2) Non-price competitiveness

Extra long staple (ELS) cotton can be sold at 60 % higher than that of medium staple in the international markets. However, it is not possible to produce it in

Syria because of its latitude and climate. Therefore, it is more practical to improve fiber strength and other properties so that the present cotton, which is generally suitable for medium count yarns, becomes suitable for finer count yarns similar to Aleppo 33/1.

(3) Era of high quality

Cotton has entered an era of quality and a non-price competitiveness. Quality, delivery period, technical service, etc. are becoming important in addition to price competitiveness. As for users of raw cotton, quality is the bottom line for producing quality yarn, thus quality is the first element in determining the conditions of transactions and the purchase price.

In addition, the number of excellent classers (cotton grading specialists) is becoming less which sometimes causes complaints for uneven quality judgement of raw cotton. This situation necessitates mechanical and sophisticated inspection systems using HVI for quality judgment.

(4) Necessity of HVI

Using HVI (high volume instrumentation) is becoming common in the world to measure the characteristics of raw cotton, except for grading which requires overall judgment by experienced people (classers). In Syria, Pressley tester or Stelometer for fiber strength, Fibrograph for fiber length and uniformity, Micronaire for fineness, Colorimeter for color classification are used as in the world. However, as HVI inspection system is now widely used in the world, it is recommended for Syria to employ HVI inspection system as soon as possible to provide users with better services.

By on-line connection between cotton producers and spinners, HVI data will be jointly used for inventory control and delivery of raw cotton. It also helps to establish information control systems in various spinning processes which is indispensable for modernizing the technical service to the spinning business.

4.2.1.8 Demand and supply of raw cotton

(1) Trend of cotton market

Figure 4.2-5 shows the raw cotton price in the New York market and Figure 4.2-6 represents changes of Cotlook Index A in recent years. As cotton is a natural fiber, its market price always fluctuates. The fluctuation becomes bigger in the 1990's. In 1991/92, raw cotton production reached a record high of 20.7 million tons thanks to a rich harvest in China.

In this era cotton surpluses pushed the market price low to 55-60 cents/lb in 1991/92 from 80-90 cents/lb in 1990/91. However, in 1993/94, production decreased to 16.7 million tons, 7% less than the previous year, which triggered a gradual increase in the cotton price from 1993/94 onwards, as steady demand for raw cotton continued and the term-end inventory decreased by 23% compared to the former season.

As the market became tight like this, the market price "Cotlook A Index" began to rise from 1993/94, reaching at last 110 cents/lb in the early half of 1995. This situation induced cotton farmers to increase production and a production level of 20.1 million tons, 8% up over the previous year, was attained. This world wide production increase and loose supply and demand again caused a downward tendency in the cotton price. It began to drop from 90 cents/lb at the 1995/96 level to the box price from 70 to 80 cents/lb at present.

(2) Characteristics of present market price

The Department of Agriculture of the USA predicts that raw cotton outputs in 1996/97 will be 88.12 million bales (19.20 million tons), a decrease of 5% from the previous year and its consumption will be 86.50 million bales (18.86 million tons), an increase of 1% over the previous year. In 1997/98, raw cotton output is expected to be slightly increased to 19.50 million due to a rich harvest in China, Central Asia and Pakistan caused by an improvement in the yield. But in general, it is anticipated that the output of raw cotton will remain at the same level since no signs of further improvement in yield or an increase in the acreage due to high competition with other crops are observed.

On the other hand, raw cotton consumption in the world will increase gradually due to strong cotton-oriented trends in the non-cotton producing countries. And

buyers are going to take more raw cotton in the market. The cotton price in the New York market presently ranges between 70 and 80 cents per pound. Tight supply and demand is mainly attributable to the export quantity being unable to move upwards from the cotton producing countries, caused by an increase in consumption in the own countries in recent years and an increased dependence on specific countries like the USA and Australia because of their stable quality, delivery punctuality and familiarity. It is also necessary to take current rising prices of grain into account as a cause.

The term-end stock of raw cotton in 1996/97 was estimated to be 8.18 million tons, an increase of 6% over the previous year. This is mainly due to increased stock in China. World cotton production, consumption, actual and estimated stocks from 1992/93 to date are shown in Table 4.2-9 and Figure 4.2-7.

(3) Demand-supply forecast in future

According to ICAC, the demand-supply forecast for raw cotton in the next 5 seasons is characterized as a dull development in cotton production, a tightness in stocks other than China and a limited world consumption due to high prices. Yields of cotton for the next 5 years will be influenced by a resistance from insecticide of an insect, blight, economic poverty, change in governmental policy and so on. Supply tightness in the free market will be anticipated because China will become a cotton importing country and an abundant export of cotton in the past by the Central Asia to the free market is not be expected since it will be used for the barter trade between Russia and such regions.

Taking these factors into account, ICAC predicts in its "Cotlook A Index" that it will be at the 74 cents/lb level by the end of this year and an average of 80-90 cents/lb between 1998/99 and 2002/2003 is estimated.

In conclusion, under such a tight world market for raw cotton, Syria should increase further its acreage and yield, perfect irrigation networks, continuously strive to upgrade cotton quality and decrease or perfect removal of contamination. By these measures, it will be possible for Syria to expand its exports and exploit new customers for raw cotton.

4.2.2 Wool Fiber

4.2.2.1 Breed of Syrian sheep

The number of Syrian sheep is estimated to be about 6 million (some data show 12 million) and accounts for 0.6% of the estimated 930 million heads of sheep in the world.

Regions of mild climate are most suitable for rearing sheep hence Australia, New Zealand and Argentina are prominent wool supplying countries. Syria, however, has been disadvantaged in developing its sheep breeding because of the restricted indigenous breed strains and its climate, which is similar to most Asian countries.

There are various breeds of sheep in the world, in excess of 20, but these can be divided into 2 breeds categories-“merino” and “cross-breed”. The main breed in Syria is called “Awars” which is classified as a “cross-breed” and was created by improving and crossbreeding the “Cause” sheep brought in from Greece. Wool sheared from the Awars breed falls into a wool classification most suitable for carpet wool yarns. The main sheep breeding areas in Syrian are Hama, Homs, Dier Ezzor and their peripheral areas.

The Awars sheep are highly appraised for their rich meat and milk and have been exported in barter trade with Hungary and Rumania. In return merino sheep were imported from these countries into Syria in the proportion 1 Awars to 2 merinos. Awars sheep are also exported to Saudi Arabia at around 50,000 heads /year.

4.2.2.2 Production and consumption of Syrian wool

Production of greasy wool in the world during the last seven years and in the big ten producing countries are shown in Table 4.2-10.

Production of washed wool after scouring in the world during last four years and the big ten producing countries are shown in Table 4.2-11.

Though there is no accurate data relating to annual production of Syrian wool, it is estimated to be about 5,000 tons of greasy wool. Because, the quantity of greasy wool sheared from one head of Syrian sheep is 2.5 kg (data obtained from

Awars Sheep Development Center. In case of merino sheep in Australia 2.7-3.1 kg) and it is multiplied by 2 million heads, supposing about one third of total heads are sheared for year. Syrian wool is mainly used as material for carpet and black wool and tannery wool is blanket use.

Production of wool spun yarn in the world during the last five years and the big ten spinning countries are shown in Table 4.2-12.

It is estimated that approximately 500 ton of Syrian greasy wool (10%) is consumed in the General Company for Wool (state-owned company) for carpet use and the balance for blanket use for the military (washed in the said company) for the local private sector and for export (See Figure 4.2-8). Besides the Syrian wool, imported New Zealand wool is used for mixing with Syrian wool in the above company and other state-owned companies.

Wool cut from Merino sheep is finer than others and is suitable for worsted spinning. But, it is exported to England, etc. (1,000 ton per year), because the pre-treating system (top making equipment, etc. for worsted spinning) is not available in Syria.

4.2.2.3 Quality of Syrian wool

(1) Length of fiber

3-7 inch

This is the ordinary length for cross-bred sheep.

(2) Diameter of fiber

31-40 μ (microns)

Generally, Merino wool ranges from 24.5 microns and finer. Crossbred wool ranges from 24.6 microns to 32.5 microns. Other (carpet) wool ranges from 32.6 microns and coarser. In general, wool finer than 30 μ is used for worsted spinning. Thus, Syrian wool is of coarse fiber and is not suitable for worsted spinning but is acceptable for carpet.

(3) Crimp

The crimp of Syrian wool is not deep but normal and flat. The Quality of wool of deep crimp is assessed as better than that of normal and flat crimp, since the deeper crimp gives rise to good fabric properties such as bulkiness, better handle, good insulation and recovery.

(4) Other properties

- 1) The handle is rigid and harsh. Lots of kemp are contained.
- 2) Colored, discolored and stained wool accounts for 30-35% of total wool. It makes sorting work difficult and adversely affects fabric shade.
- 3) Botanical foreign matter is much found (5-7%) and it is difficult to get rid of it in the washing and spinning processes.
- 4) Earth and sand remain, 3-4% in the washed wool, adversely affecting the spinning process.

The above data shows that the quality of Syrian wool is low and it is not suitable as the raw material for worsted and woolen spinning for fabric use is limited to carpets as of now, and only when blended with other better quality wool, like New Zealand wool, or for overcoats, and jackets used in a cold climates using very coarse woolen yarn of Nm 1.5. Following test result of Syrian wool proves the above fact.

(5) Test result of Syrian wool

Samples of Syrian scoured wool brought back to Japan was analyzed. Its test result is as follows ;

- 1) Mean staple length 94.3 mm (3.8 inch)

It was measured by Sorter method. The figure obtained falls under the range of 3-7 inch, normal staple length of Syrian wool, though it is a little short as the carpet wool.

- 2) Diameter of fiber (Denier)

Result of measuring by Micronaire alley showed the figure of 45.9μ (The apparent denier, 19.64D was converted into micron, using conversion formula). The figure exceeds the above denier range. But, the bleed "Dreisdale" and "Scotch black tail" of England, bleed exclusive for carpet use have micron more than 40. The fact shows that Syrian wool is also apt for carpet.

- 3) Residual fat
0.45%. This clears the standard of $0.55\% \pm 0.2\%$.
- 4) Residual earth and sand (Ash content)
2.28%. Better result was obtained than the range of 3~4%.

4.2.2.4 Price and transaction of Syrian wool

The purchase price of Syrian wool by the state-owned wool spinning company is SP60 per kg. This is not so competitive, in terms of price, compared to other similar kinds of wool in the world.

Wool merchants buy sheared wool from farmers or wool growers in large quantity, as and sell it to the user factories. Annual transactions of one agent the team visited was 250 ton of Syrian greasy wool and 150 ton of other wool (colored, tannery, merino, etc.). The agent carries out rough sorting (removal of stained wool and "pieces"-extremely short fiber) before selling to this customers.

4.2.2.5 Development policy for sheep

The breeding of sheep is under the jurisdiction of the Desert Division of the Ministry of Agriculture. There are about 20 state-owned centers for the breeding and development of sheep in Syria. The duties of such centers are ;

- 1) Development of new breeds and improvement of the existing breeds by cross breeding (blood mixing).
- 2) Trial production and development of new grass
- 3) Quality tests of meat, milk and wool.
- 4) Marketing of bred sheep, etc.

The team visited the "Government Sheep Growing Center", Hama and "Elkrem Center for Sheep Breeding and Range Development" (Awars Sheep Development Center).

The development and improvement of sheep in such development centers principally aims at improving of meat and milk in products. However, the wool itself is also expected to improve little by little, as the sheep body is improved.

4.2.3 Silk Fiber

When the Draikeesh Silk Yarn Factory was established in 1963, it was expected to significantly help Syrian sericulture development largely. On the contrary to such expectation, the production of silk yarn dropped from about 10 tons in 1992/1993 to 2.6 tons in 1996.

4.2.3.1 World situation of the silk industry

The Manager of ISA (International Sericulture Association) at ISC (International Sericulture Committee), held during April 22-26, 1997 reported that the International Sericulture situation and the future scope was as follows;

- (1) There were major producing countries (China, India, Japan, Soviet Russia, Brazil) and many consuming markets (USA, Europe, Japan), where high fashion wear, printed ties and scarves were the main type of products sold to the consumers.
- (2) Today's world is a bit different. The main producing countries are producing, but, output remains at the same level as before, or decreasing. No new producing countries are appearing.
- (3) China announced large decrease in silk yarn production in 1996, and the figure is reckoned to be about 42,000 tons.
- (4) Production of silk in the major silk producing countries in the past 3 years are shown in Table 4.2-13.
- (5) There is no doubt that the supply in the world wide silk market, will face shortage because of the decrease in production in China.

4.2.3.2 Production, domestic consumption and export of silk from Syria

(1) Silk Yarn Production

<u>Year</u>	<u>Eggs (Box)</u>	<u>Yarn Production (kg)</u>
	<u>Plan/Actual</u>	<u>Plan/Actual</u>
1993	3,400/3,400	15,300/10,218
1994	1,500/3,100	6,750/ 9,797
1995	1,500/2,300	6,750/ 3,446
1996	1,500/1,400	6,750/ 2,613
1997	1,250/1,250	5,625/ 2,912

Causes of decrease are as follows;

- 1) High price of yarn due to high cost of cocoon production, resulting in difficulty with sales. About 17 tons of stock was observed in the form of twisted yarn and dyed yarn etc..
- 2) Lack of scientists and management in the field of mulberry growing and cocoon feeding.

(2) Silk Yarn Price

- 1) Price of silk yarn, set by the committee is US\$ 46-50/kg which is 192% of international standard price of US\$ 25/kg.
- 2) Extraordinary high pricing of yarn is mainly caused by the costs plus marginal profit cost calculation system of cocoon price, namely, cocoon price of US\$ 4.80/kg is 185% of international standard cocoon price of US\$ 2.60/kg.
- 3) If silk yarn is allowed to come into Syria from abroad in the future, in such low prices and high quality, the Syrian sericulture industry of Syria will be completely be damaged and destroyed, unless some measures are taken to protect and reinforce it.

4.2.3.3 Quality of Syrian silk yarn

Syrian silk yarn had been randomly tested in Japan by Japanese Yarn Grading inspection method, the result was, "Out of Grade", low quality both in raw yarn and in twisted yarn, as shown in ANNEX-2.

4.2.3.4 Competitiveness of Syrian silk in the world

With the present quality and price standard, exports to the free western countries seems quite difficult.

Table 4.2-1 SYRIAN COTTON PRODUCTION (1951-77) (1)

Season	Area in 1,000ha			Yield (kg/ha)			Production (1,000ton)		
	Irrigated	Non-irrigated	Total Area	Irrigated	Non-irrigated	Average	Irrigated	Non-irrigated	Total
1951	—	—	217	—	—	221	—	—	48.0
1955	187.0	56.0	243.0	435	100	358	81.4	5.6	87.0
1957	186.7	71.6	258.3	532	109	415	99.4	7.8	107.2
1961	202.8	46.3	249.1	586	123	500	118.8	5.7	124.5
1964	220.6	65.9	286.5	745	171	613	164.3	11.3	175.6
1965	233.3	62.1	295.4	736	138	610	171.6	8.6	180.2
1967	197.3	42.1	239.4	616	119	528	121.5	5.0	126.5
1969	236.6	62.5	299.1	601	115	499	142.2	7.2	149.4
1971	220.2	30.3	250.5	698	125	628	153.6	3.8	157.4
1972	210.5	27.7	238.2	759	123	685	159.7	3.4	163.1
1973	195.4	5.0	200.4	793	107	761	155.0	0.5	155.5
1974	180.6	25.2	205.9	787	103	703	142.2	2.6	144.8
1975	185.1	23.0	208.1	848	144	761	155.0	3.3	158.3
1976	172.7	9.1	181.8	896	184	860	154.6	1.7	156.3
1977	176.8	10.2	187.0	851	147	813	150.5	1.5	152.0

Source : World Cotton Series, "Syria", Monthly Report of Japan Spinners' Association Foundation

Table 4.2-2 SYRIAN COTTON PRODUCTION (1980-1998) (2)

Season	Area in 1,000ha Irrigated	Yield of Lint Cotton Kg/ha.	Production of Lint in 1,000tons
1980/81	138.8	849	117.8
1981/82	143.4	903	129.5
1982/83	158.8	995	158.0
1983/84	172.6	1,124	194.0
1984/85	178.5	856	152.8
1985/86	170.2	950	161.7
1986/87	144.3	873	125.9
1987/88	128.7	750	96.5
1988/89	171.0	667	114.1
1989/90	158.0	812	128.2
1990/91	145.0	965	140.0
1991/92	170.0	1,143	194.0
1992/93	212.0	1,137	241.0
1993/94	196.0	1,140	223.0
1994/95	187.0	1,150	230.0
1995/96	190.0	1,105	210.0
1996/97*	219.0	1,119	245.0
1997/98*	225.0	1,023	230.0

* estimate Source : Cotton Bureau, Aleppo International Cotton Advisory Committee (ICAC), 1996

Table 4.2-3 COTTON EXPORTS FROM SYRIA BY DESTINATION

Unit : ton

Destination	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Algeria	8,553	4,145	5,040	—	6,000	12,262	19,418
Belgium	44	—	—	—	196	196	—
China, P.R.	—	—	—	—	—	—	—
Czechoslovakia	7,615	9,011	3,011	3,207	—	2,051	742
France	15,033	3,142	—	3,142	1,091	2,400	7,767
Germany, F.R.	6,982	2,051	1,767	2,007	3,731	—	7,265
Germany, D.R.	5,520	—	—	5,018	—	—	—
Italy	17,302	8,836	3,011	9,753	27,665	32,531	41,302
Japan	—	—	—	—	—	—	4,407
Morocco	545	305	—	—	502	9,513	5,258
Portugal	196	44	—	—	175	—	—
Romania	—	—	2,007	10,036	—	—	—
Spain	9,425	5,956	502	2,749	4,931	6,567	1,658
United Kingdom	153	—	—	—	—	—	—
U.S.S.R.	15,055	12,044	5,018	10,015	9,011	—	—
Others	13,942	14,684	12,589	11,825	17,956	26,007	50,880
Total	100,365	60,218	32,945	57,752	71,258	91,527	138,697

Source : ICAC

Table 4.2-4 GINNED COTTON SHIPMENT IN SYRIA (tons/year)

	EXPORT	DOMESTIC	TOTAL
1983/84	151,453	42,389	193,842
1984/85	102,989	47,116	150,105
1985/86	100,117	60,582	160,699
1986/87	60,006	62,374	122,380
1987/88	88,897	65,921	154,818
1988/89	57,659	56,581	114,240
1989/90	71,120	55,585	126,705
1991/92	107,014	51,605	158,619
1992/93	149,858	48,263	198,121
1994/95	156,000	52,915	208,915
1995/96	130,000	56,301	186,301
1996/97	190,000	68,208	258,208

Source: Cotton Marketing Organization

Table 4.2-5 SYRIAN POSITION IN THE WORLD COTTON PRODUCTION

	1996/97		
	Production million ton	%	Ranking
China, P.R.	4.00	20.9	2
U.S.A.	4.13	21.6	1
India	2.76	14.4	3
Pakistan	1.56	8.2	4
Uzbekistan	1.07	5.6	5
Turkey	0.79	4.1	6
Others	4.56	23.9	—
Syria	0.24	1.3	13
World Total	19.11	100.0	69 countries

Source : Statistic of ICAC, 1997

Table 4.2-6 SYRIAN POSITION IN WORLD COTTON EXPORT

	1996/97		
	Export Million ton	%	Ranking
U.S.A.	1.55	26.6	1
Uzbekistan	1.05	18.0	2
Australia	0.47	8.1	3
Argentina	0.32	5.5	4
Mali	0.19	3.3	5
Greece	0.18	3.1	6
India	0.16	2.7	7
Others	1.75	30.1	--
Syria	0.15	2.6	8
World Total	5.82	100.0	70 Countries

Source : Statistics of ICAC, 1997

**Table 4.2-7 GINNED COTTON PRODUCTION BY VARIETY IN SYRIA
(tons/year)**

VARIETY	1994	1995	1996	1997(estimate)
Aleppo33/1	16,104	24,898	30,949	30,600(12.1%)
Rakka 5	27,763	32,059	38,649	43,860(17.4%)
Deir Ezzor 22	18,221	19,666	21,503	24,480(9.7%)
Aleppo 40	108,590	112,760	156,475	153,340(60.8%)
Total	170,727	189,383	247,576	252,280(100.0%)

Source: Cotton Marketing Organization

Table 4.2-8 CIF NORTH EUROPEAN QUOTATIONS

Unit : US cent/lb

Date	Syrian Quotation	Average of Cheapest 5 of 14 Styled	Date	Syrian Quotation	Average of Cheapest 5 of 14 Styles
Jan. 5, 1996	90.50	85.85	Aug.30,1996	NQ	75.85
Jan.12,1996	90.50	86.35	Sep. 6,1996	NQ	76.25
Jan.19,1996	89.50	85.50	Sep.13,1996	NQ	74.65
Jan.26,1996	91.50	85.95	Sep.20,1996	NQ	75.05
Feb. 2,1996	90.50	87.45	Sep.27,1996	NQ	75.50
Feb. 9,1996	90.50	86.55	Oct. 4,1996	NQ	76.00
Feb.16,1996	89.50	85.55	Oct.11,1996	NQ	75.85
Feb.23,1996	89.50	84.60	Oct.18,1996	NQ	75.00
Mar. 1,1996	89.50	83.10	Oct.25,1996	77.00	74.85
Mar. 8,1996	89.50	82.75	Nov. 1,1996	77.00	75.45
Mar.15,1996	89.50	83.35	Nov. 8,1996	76.50	75.40
Mar.22,1996	90.50	83.75	Nov.15,1996	76.00	75.00
Mar.29,1996	86.50	83.20	Nov.22,1996	78.00	76.00
Apr. 4,1996	87.00	82.75	Nov.29,1996	80.00	77.40
Apr.12,1996	87.50	84.15	Dec. 6,1996	80.00	78.50
Apr.19,1996	86.00	82.80	Dec.13,1996	80.50	79.20
Apr.26,1996	86.00	82.30	Dec.20,1996	80.00	79.55
May 3,1996	85.50	82.20	Jan. 3,1997	79.50	79.40
May10,1996	85.50	83.15	Jan.10,1997	79.50	79.15
May17,1996	85.00	82.75	Jan.17,1997	79.50	79.60
May24,1996	85.00	82.65	Jan.24,1997	79.50	80.05
May31,1996	85.00	83.70	Jan.31,1997	80.00	80.65
Jun. 7,1996	85.50	84.10	Feb. 7,1997	82.00	80.60
Jun.14,1996	85.00	84.35	Feb.14,1997	81.75	80.45
Jun.21,1996	84.50	82.80	Feb.21,1997	81.75	79.90
Jun.28,1996	83.50	81.25	Feb.28,1997	81.75	80.65
Jul. 5,1996	82.50	79.75	Mar. 7,1997	81.75	80.80
Jul.12,1996	NQ	79.70	Mar.14,1997	81.00	81.70
Jul.19,1996	NQ	79.90	Mar.21,1997	80.50	80.50
Jul.26,1996	NQ	80.00	Mar.27,1997	80.00	79.50
Aug. 2,1996	NQ	77.80	Apr. 4,1997	79.50	78.55
Aug. 9,1996	NQ	76.75	Apr.11,1997	79.50	79.15
Aug.16,1996	NQ	76.55	Apr.18,1997	79.00	78.90
Aug.23,1996	NQ	75.80			

Source : 'Cotlook Indices', "Cotton Outlook"

Table 4.2-9 WORLD COTTON BALANCE SHEET

	1,000tons				
	1992/93	1993/94	1994/95	1995/96	1996/97
Beginning Stocks	8,022	7,477	5,733	6,387	7,717
Production	17,985	16,721	18,639	20,100	19,184
Supply	26,007	24,198	24,372	26,487	26,901
Consumption	18,704	18,617	18,465	18,595	18,836
China	4,687	4,643	4,404	4,251	4,295
Non-China	14,017	13,974	14,061	14,344	14,541
Ending Stocks	7,477	5,733	6,387	7,761	8,175
China	2,267	1,330	2,115	3,292	3,728
Non-China	5,210	4,403	4,272	4,469	4,447

Source : ICAC

Note. The figure of ending stock in this table does not necessarily coincide with the figure obtained by deducting the consumption from the supply, as all the figure of unit ton was obtained by conversion from unit bale (480 lbs).

Table 4.2-10 PRODUCTION OF GREASY WOOL IN THE WORLD

	Unit : 1,000 ton						
Countries	90/91	91/92	92/93	93/94	94/95	95/96	96/97
1. Australia	1,066	875	869	828	724	697	682
2. Former USSR	475	441	414	366	340	236	182
3. New Zealand	305	296	256	284	289	263	260
4. P.R.China	239	240	238	240	260	276	306
5. Argentina	136	121	114	98	90	81	78
6. Uruguay	97	87	90	93	88	79	82
7. Turkey	83	79	75	75	74	75	72
8. Pakistan	63	64	66	67	70	53	54
9. South Africa	106	83	75	75	68	63	62
10. U.K.	72	70	71	68	66	74	72
Other Countries	683	667	649	622	619	638	631
Greasy W. total	3,325	3,023	2,917	2,816	2,688	2,535	2,481

Source : Textile Handbook, 1997, Japan Chemical Fibers Association
International Wool Textile Overview, Spring 1997, I.W.T.O.

Table 4.2-11 PRODUCTION OF WASHED WOOL IN THE WORLD

Unit : 1,000 tons

Countries	93/94	94/95	95/96	96/97
1. Australia	544	473	452	442
2. New Zealand	214	213	199	196
3. P.R. China	120	130	138	153
4. Former USSR	193	157	123	95
5. Uruguay	66	60	56	58
6. U.K.	45	44	44	43
7. Argentina	52	48	43	41
8. South Africa	42	37	37	36
9. Turkey	38	37	37	36
10. India	28	28	28	28
Other Countries	331	331	326	324
World Total	1,673	1,558	1,483	1,452

Source : International Wool Textile Overview, Spring 1997

Table 4.2-12 PRODUCTION OF WOOL SPUN YARN IN THE WORLD

Unit : 1,000 tons

Countries	1990	1991	1992	1993	1994
1. USA	521	493	526	551	576
2. Italy	507	516	539	526	561
3. Former USSR	421	357	361	382	-
4. P.R.China	238	283	351	344	375
5. Turkey	171	166	180	198	193
6. South Korea	207	191	169	158	-
7. Japan	200	201	187	145	144
8. U.K.	131	118	122	118	118
9. India	66	68	72	80	81
10. Spain	75	73	74	68	71
Other Countries	931	836	798	778	-
World total	3,468	3,302	3,379	3,348	3,382

Source : Textile Handbook, 1997

Japan Chemical Fibers Association

Table 4.2-13 PRODUCTION OF SILK IN THE WORLD**(tons/y)**

Country	1993	1994	1995
China	54,480	59,300	64,600
India	13,480	13,418	13,913
Japan	5,100	3,901	3,228
Brazil	2,280	1,445	1,500
Uzbekistan	1,798	1,822	1,307
Thailand	1,200	1,654	1,074
North Korea	1,200	1,000	800
Iran	550	620	750
Korea	600	503	643
Turkey	100	80	40
Others	250	340	345
Total	82,238	86,618	90,668

Figure 4.2-1 SYRIAN COTTON PRODUCTION

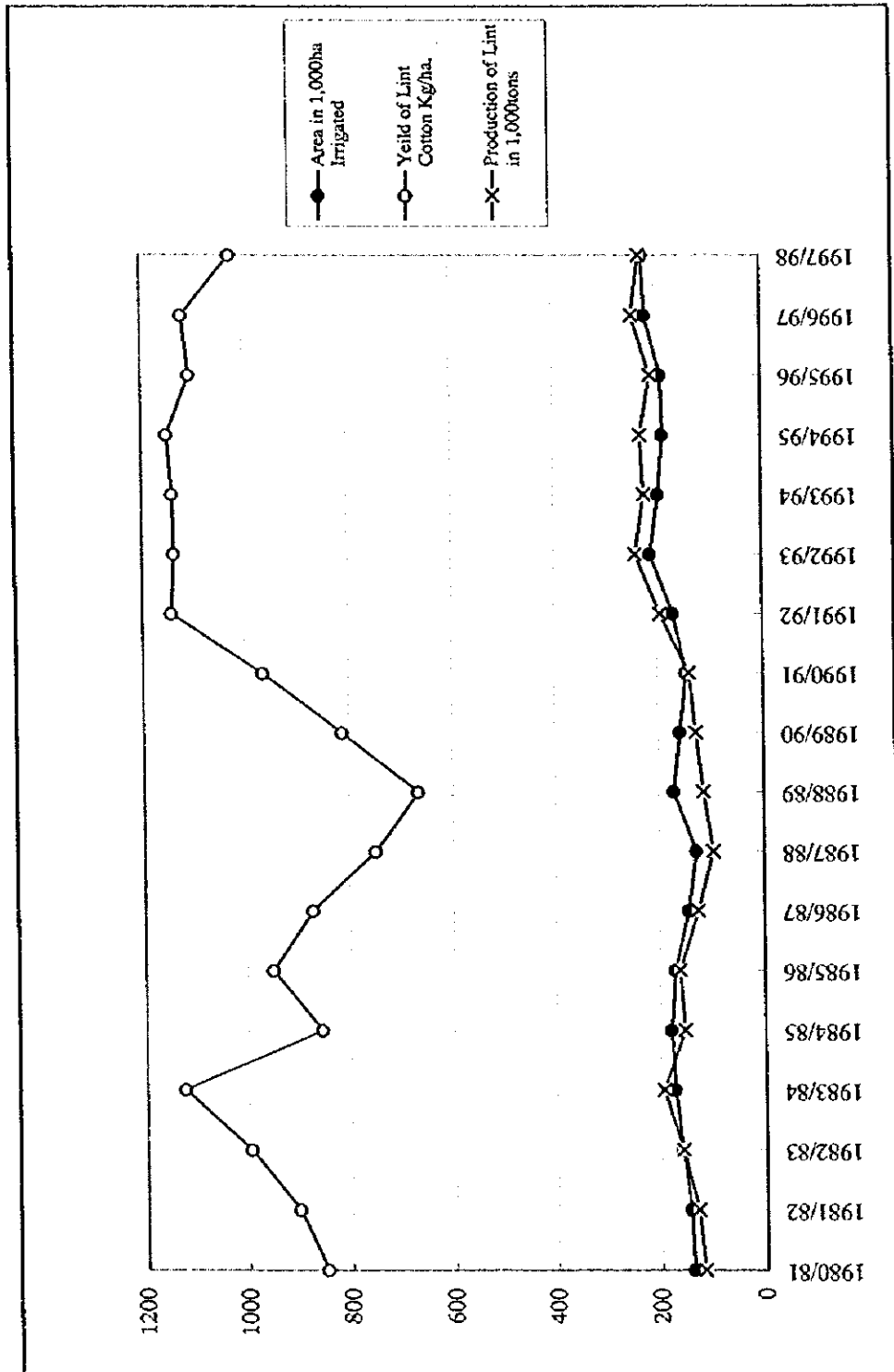


Figure 4.2-2 SYRIAN POSITION IN THE WORLD COTTON PRODUCTION
(1996/97)

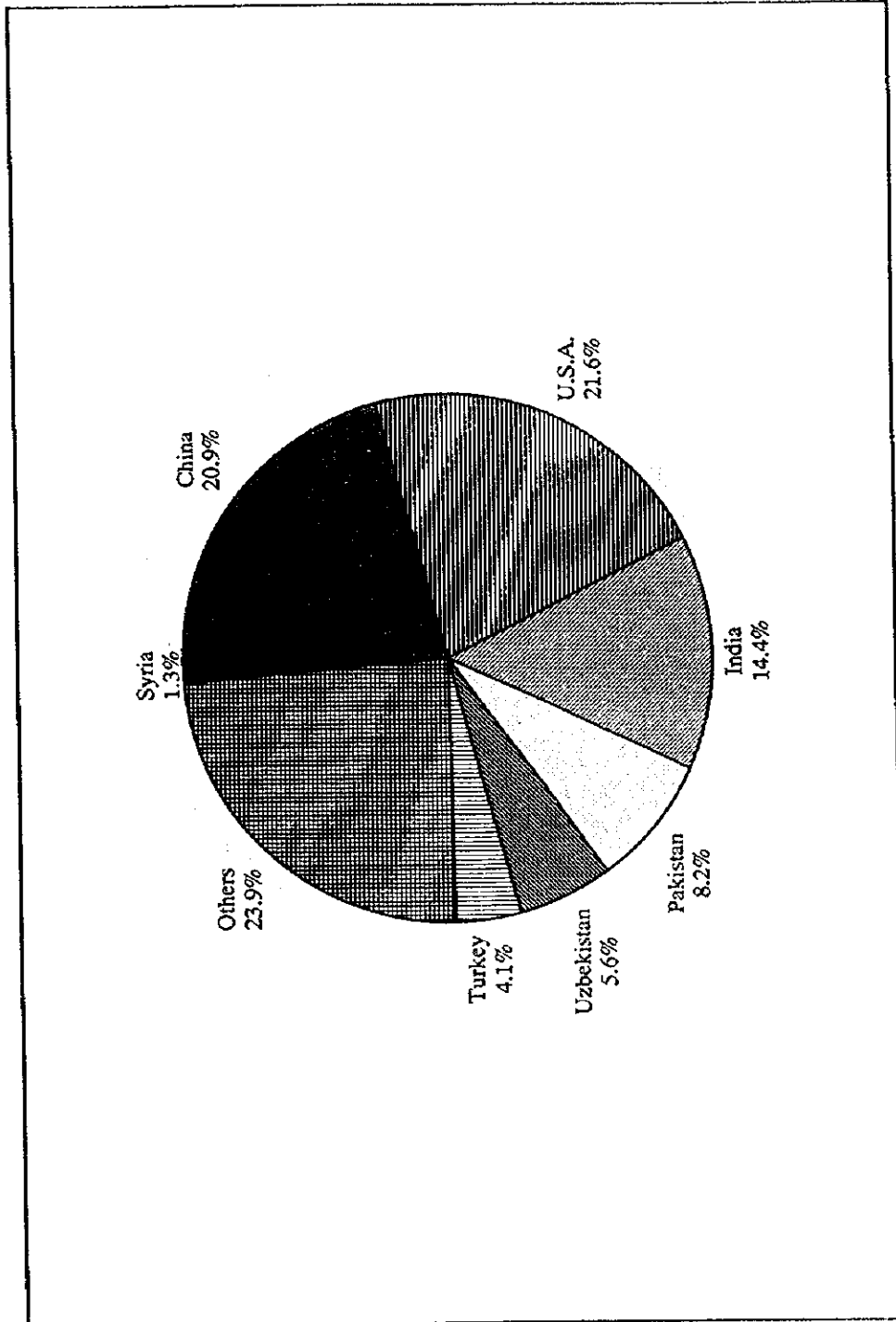


Figure 4.2-3 SYRIAN POSITION IN WORLD COTTON EXPORT (1996/97)

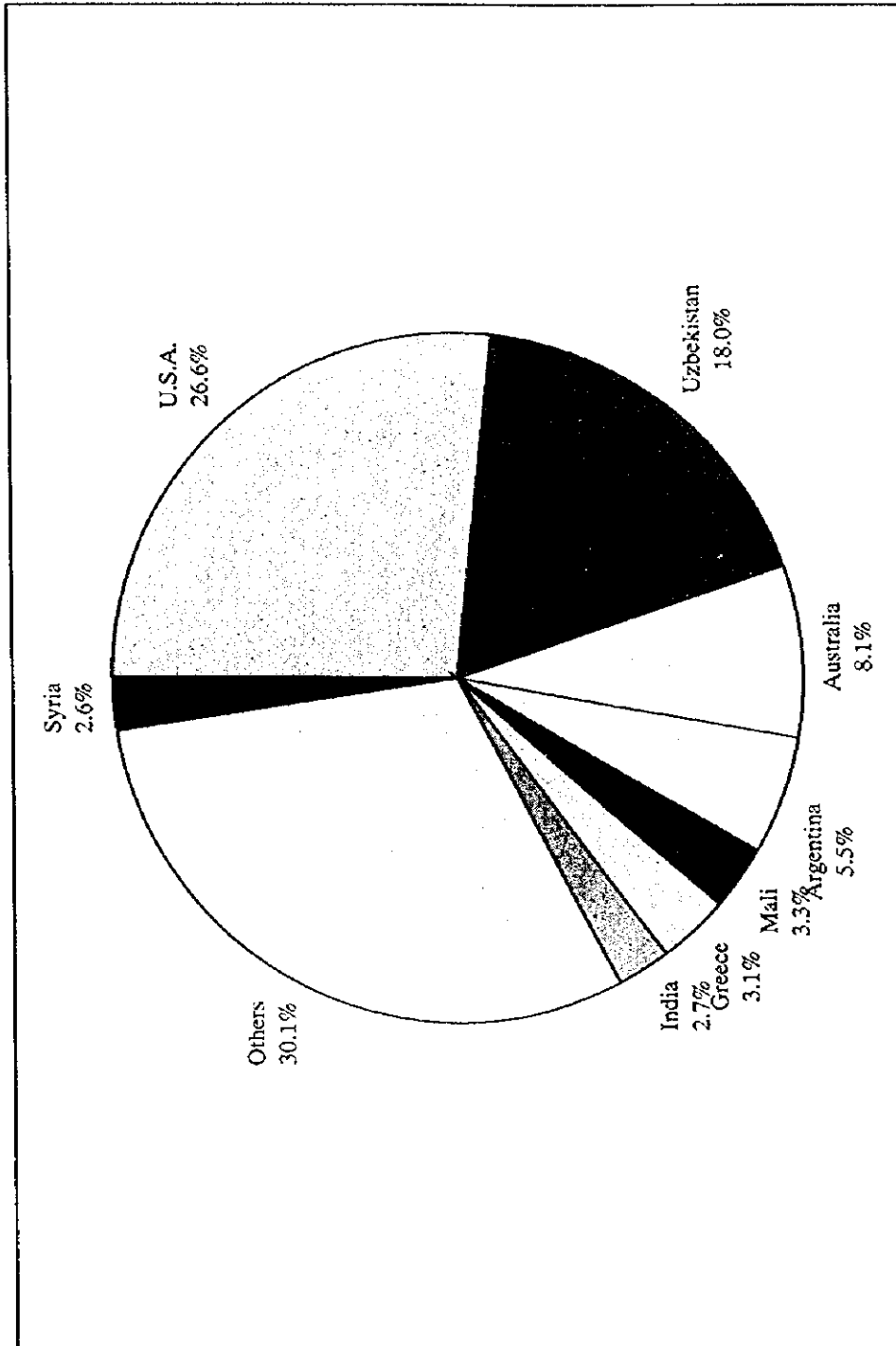


Figure 4.2-4 CIF NORTH EUROPE QUOTATIONS

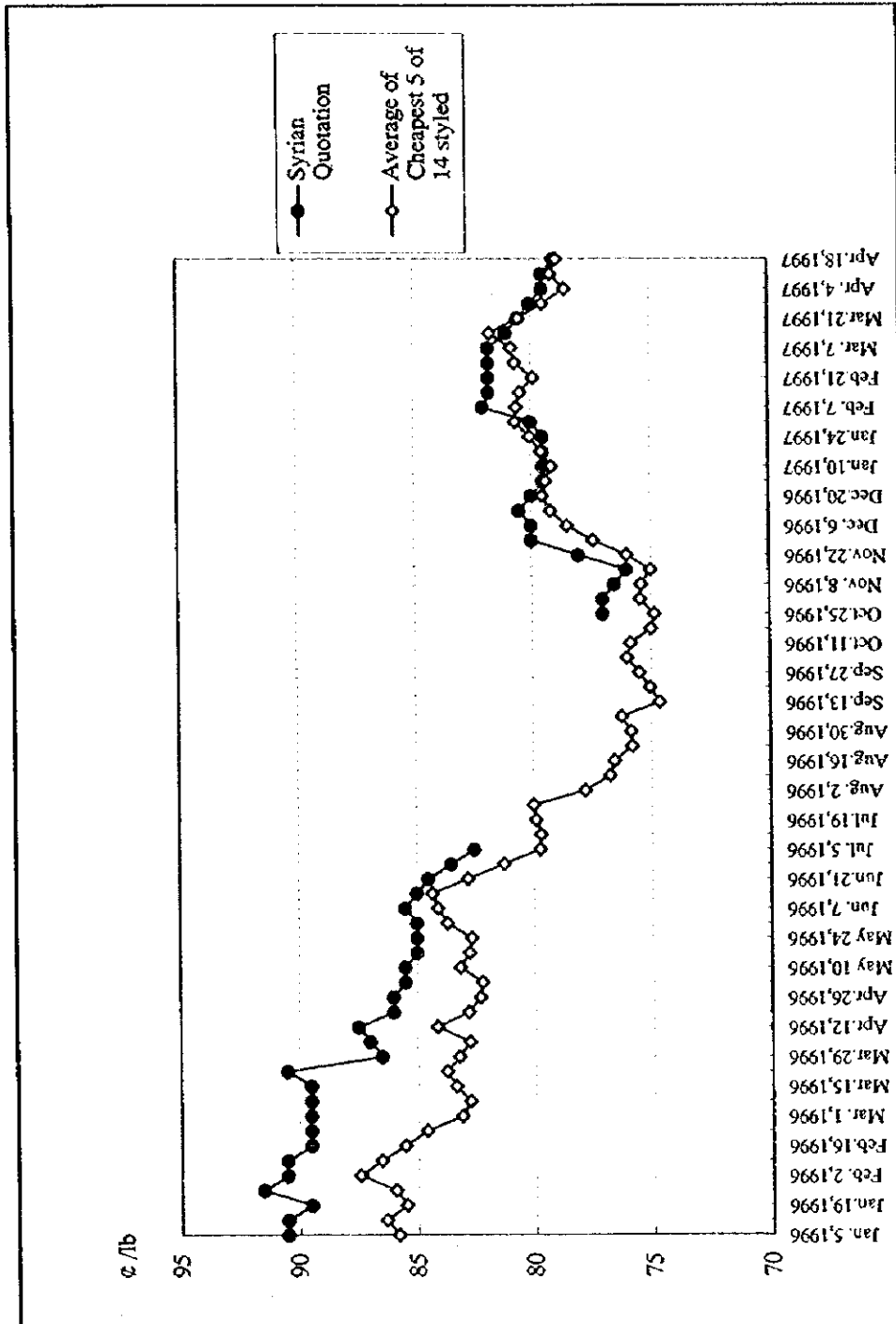


Figure 4.2-5 NEW YORK COTTON MARKET PRICE (CURRENT MONTH DELIVERY)

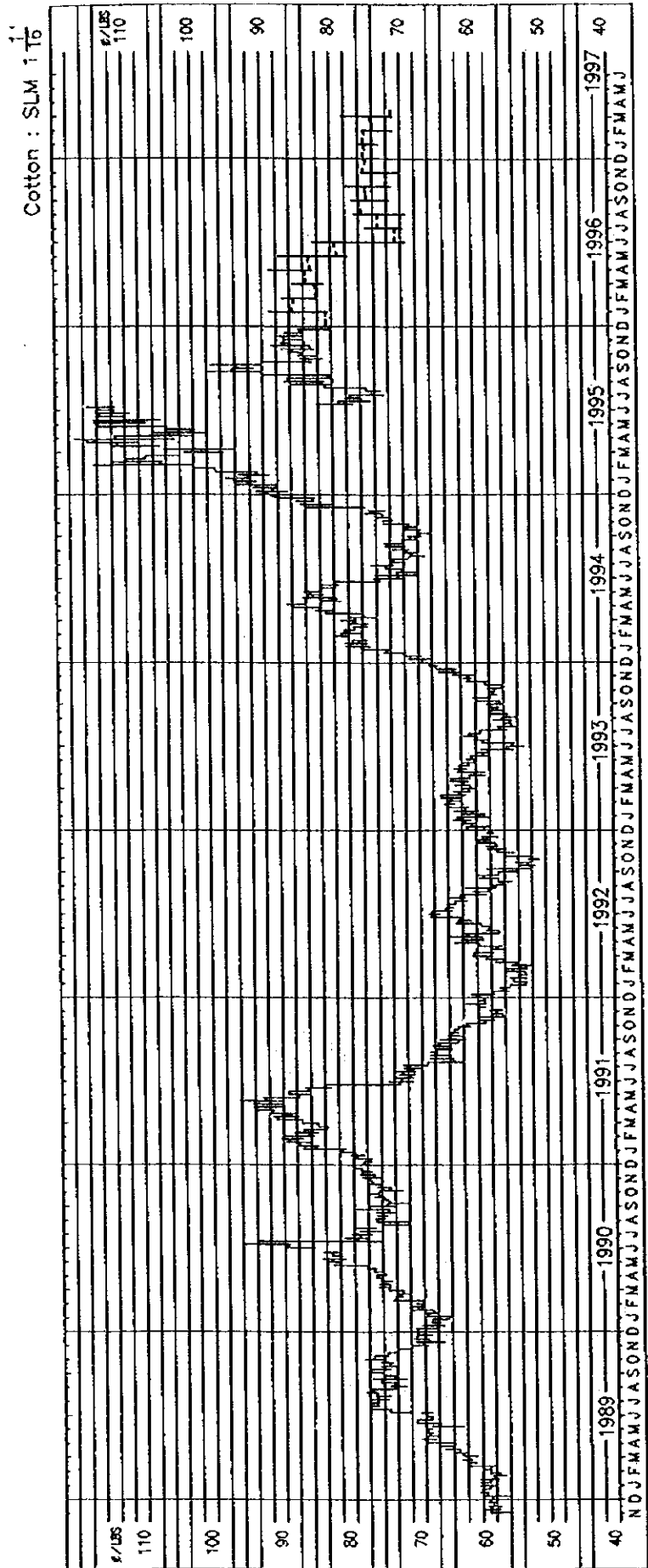
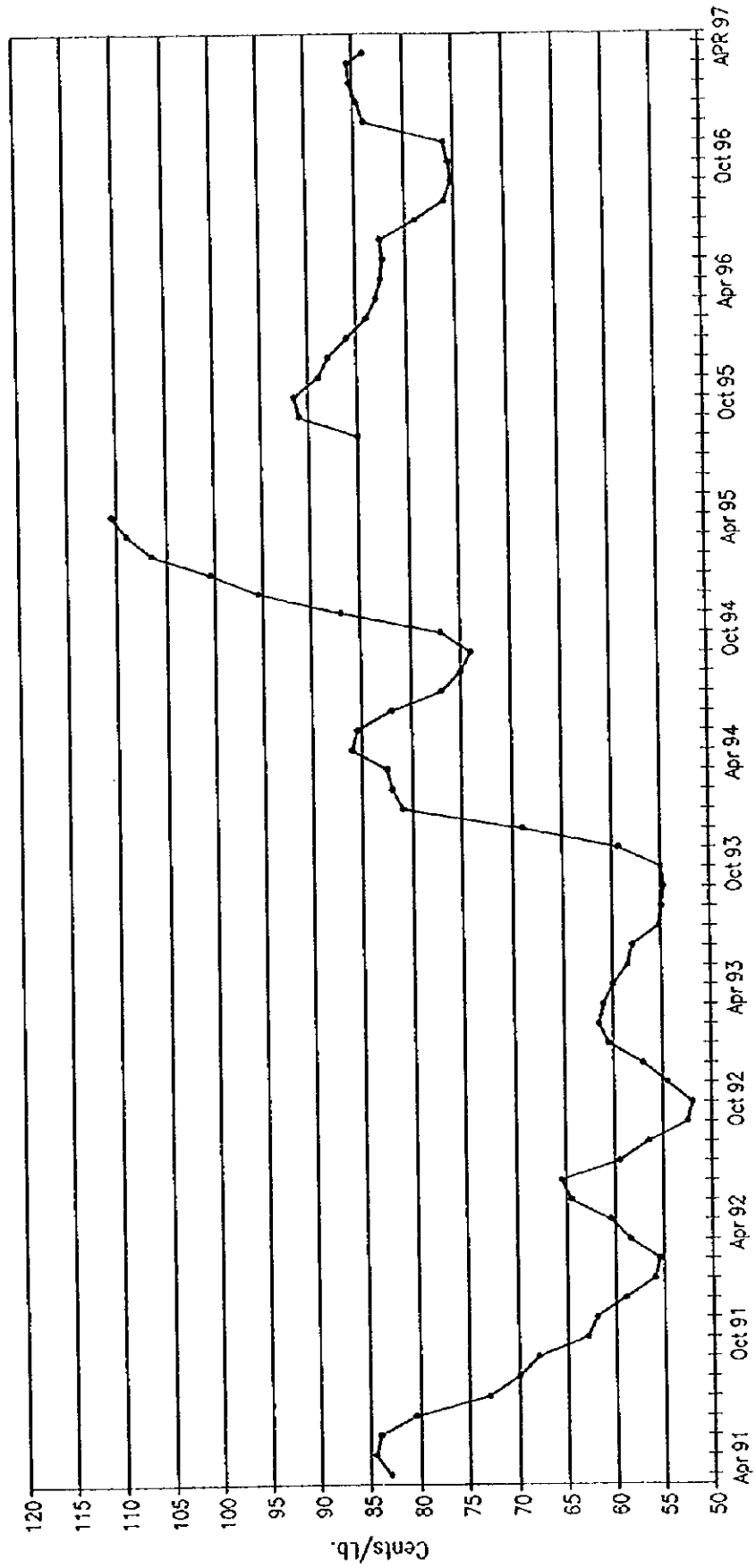


Figure 4.2-6 MONTHLY AVERAGE PRICES (A-INDEX) APRIL 1991-APRIL 1997



* The A Index was suspended from May 24 through July 17 due to the lack of quotes.

Figure 4.2-7 WORLD COTTON BALANCE SHEET

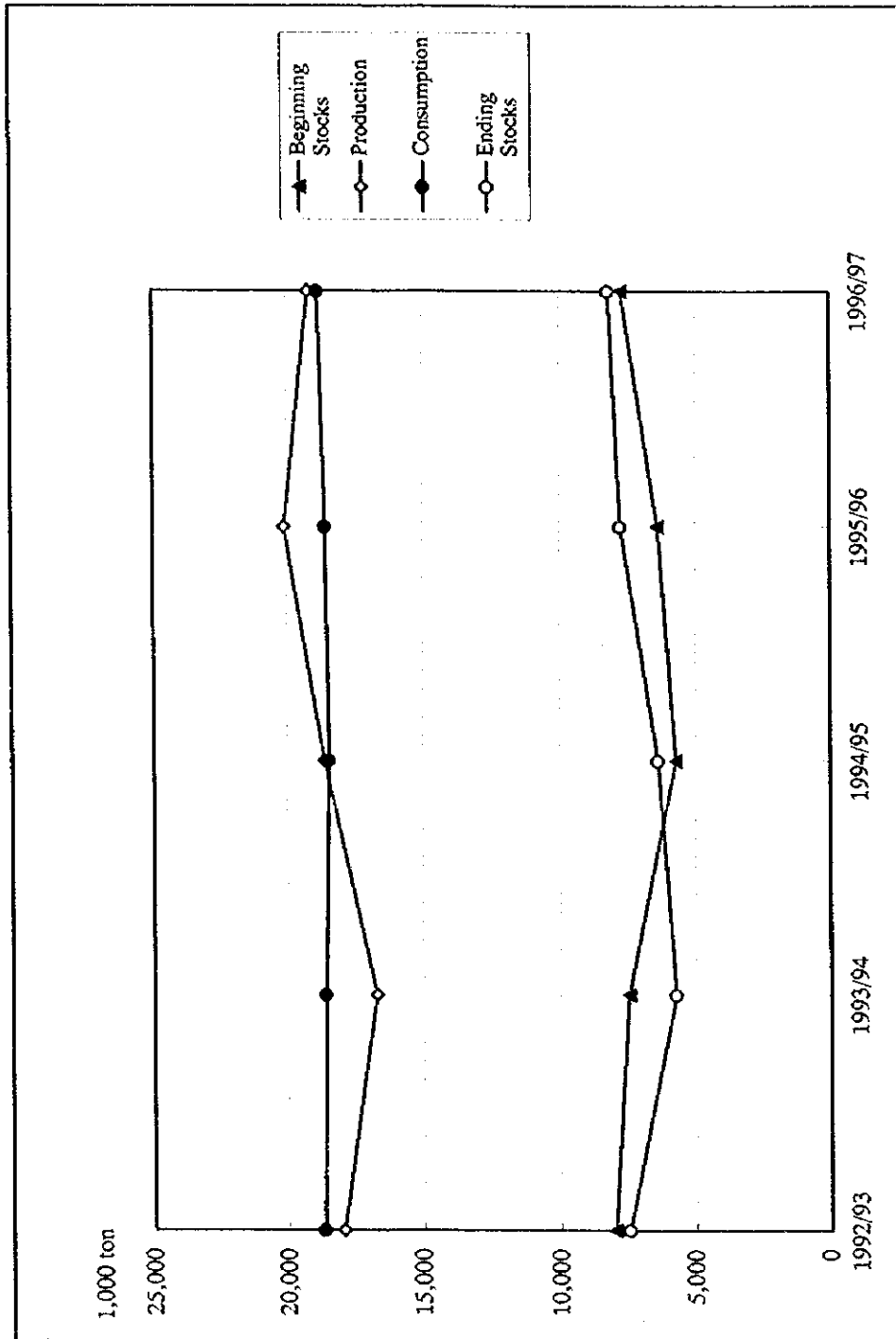
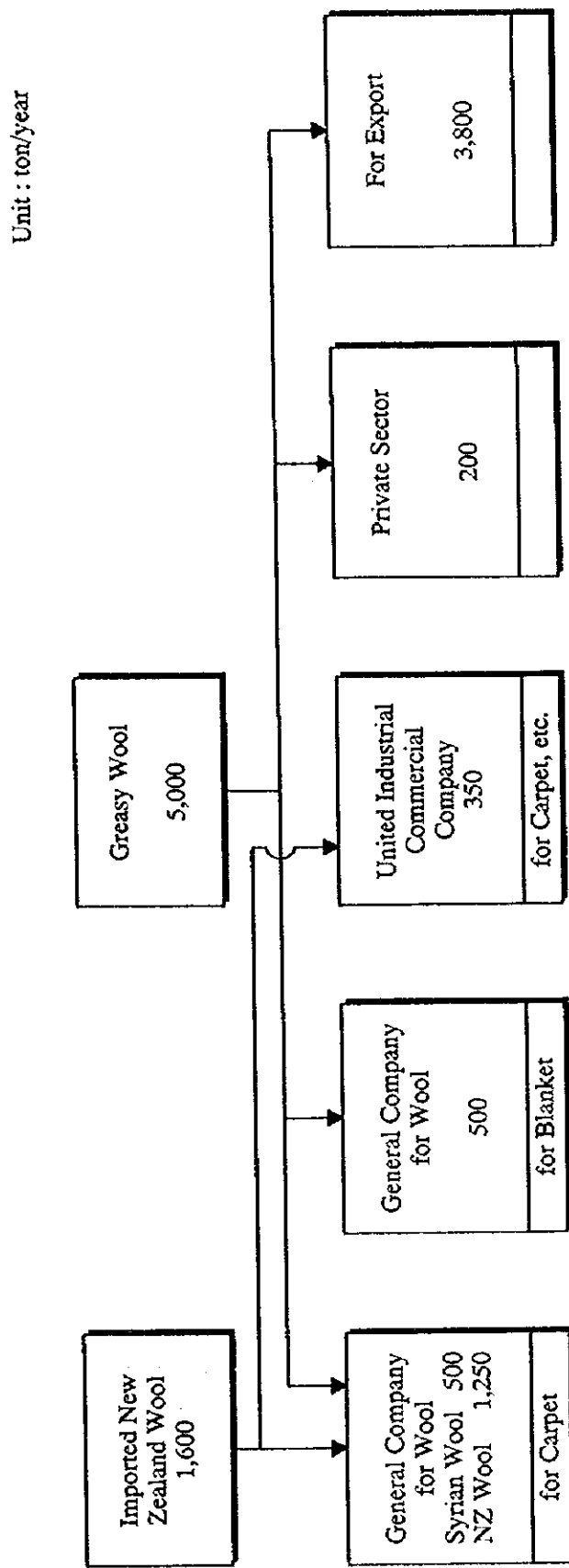


Figure 4.2-8 WOOL CONSUMPTION IN SYRIA



Source : Estimate of Study Team

Note : The above is quantity of greasy wool before scouring.

The wool yarn obtained from the greasy wool is calculated as follows;

Greasy wool x Scouring yield (55%) x Spinning yield (90%)

In case of Hama Wool, spun yarn for carpet is currently 800 tons.

4.3 Present Situation and Problems of State-owned Textile Companies

4.3.1 State-Owned Textile Companies, General

4.3.1.1 Present situation of state-owned textile companies

The textile fibers produced in Syria are cotton, wool and silk. The main activity of the state-owned textile companies is cotton spinning. Their activity and present situation are described in detail in Chapter 4.1.3.

4.3.1.2 Problems of state-owned textile companies

The state-owned companies, as a whole, have the following problems:-

- a) Obsolete production machinery and equipment
- b) Low productivity and quality
- c) Weak sales ability (especially for export)
- d) Poorly skilled workforce
- e) Inadequate production and management control

Regarding obsolete machinery, except for Lattakia new Spinning company which was recently commissioned, the other companies require a replacement and/or renewal program of varying magnitude for their machinery, although partial improvements are already in progress.

In the case of obsolete machinery, it is very difficult to acquire the necessary parts which are indispensable for proper operation. In-house fabrication of parts is an alternative solution for this problem but it has its limit in terms of quality and reliability. Using obsolete machinery has the same connotations as applying out-of-date production technology. It leads to a deterioration in productivity and quality. Modern production machinery has the latest production technology built in. In the past, due to the characteristics of Syrian raw cotton, the state-owned textile companies produced textiles of low grade for clothing and bags where quality was not questioned. This situation avoided any recognition of the importance of quality and quality-first mentality.

In addition, the lack of quality awareness is also attributable to the application of quality control techniques, such as SOP, QC, and TQC. The first thing for

Syrian companies to do will be to understand and master SOP, QC, and TQC. Moreover, it will be necessary for Syria to introduce ISO9000 and to establish rules or regulations for quality standards in the country.

Since many transactions of the state-owned companies are carried out more by government organizations than private companies, such policies as import prohibition or limitation favor the sellers. Further more, as exports of products (yarn and textiles) by the state-owned Syrian companies are very few, it is difficult to instill a strong will for stable quality, sales promotion and marketing which the textile exporting countries have. In this situation, no claims on products are anticipated by the procedures and this also creates a low quality-mentality. This would become a crucial matter, if they tried to enhance business through exporting of their products in the future.

The state-owned companies can not compete with the private companies in respect of recruitment of competent workers, as they are tied to inflexible wage structures and are up against attractive salaries offered by private companies. This problem is serious in Aleppo where many private textile companies are in operation. In addition, it is said that workers are not available in adequate numbers during the harvesting season in Hassakeh and Deir Ezzor districts. In the garment industry the state-owned garment companies are left far behind by the private sector which is remarkably advanced, and the laborers working in the state-owned companies are discouraged as their sale are low.

On the other hand, Hama Cotton Yarn Company's achievement is noteworthy as it is producing quality yarns with a good management in spite of its old machinery. This may be a useful model from which other state-owned companies can learn from and follow.

A state-owned company has the following disadvantages in comparison with a private company in the free competitive market:-

- a) Flexibility to the market (market-in principle);
- b) Seriousness on production, quality and inventory control as a result of the market-in principle;

- c) Obsolete technology and incompetent workforce in textiles and clothing, then producing unattractive goods, having poor ability in design, computerized grading, and in compliance with user's specification, etc.

4.3.2 State-owned Cotton Textile Companies

Main business of the state-owned companies is cotton spinning in the upstream (at best, to the midstream). There are 18 existing companies of cotton and polyester staple spinning. (Table 4.3-1) In addition, there are three projects on the way, one in progress and two under study.

**Table 4.3-1 STATE OWNED TEXTILE COMPANIES
(COTTON AND SYNTHETIC)**

	Name of the company	Process	Other
1)	Al Shark Underwear's General Company	Knitting, garment	
2)	Arab Underwear's General Company	Knitting, garment	
3)	Maghazel Spinning & Weaving Company	Spinning, weaving, dyeing	
4)	Al Ahlieh Company for Spinning & Weaving	Spinning, weaving, dyeing	(Wool integrated)
5)	Aleppo General Company for Silk Weaving	Weaving, dyeing	(Wool, synthetic carpet)
6)	Lattakia Weaving Company	Cotton weaving	
7)	Lattakia Spinning Company	Cotton spinning	
8)	Jableh Spinning Company	Cotton spinning	
9)	Homs Spinning & Weaving Company	Spinning, weaving, dyeing	
10)	Al Waleed Spinning Company	Cotton spinning	
11)	United Industrial Commercial Company	Spinning, weaving, dyeing	(Wool, synthetic spinning)
12)	United Arab Company for Industry	Spinning, weaving, dyeing	
13)	Al Shahba Spinning & Weaving General Company	Cotton spinning, weaving	
14)	Syrian Company for Spinning & Weaving	Spinning, weaving, dyeing	(Knitting, garment)
15)	Hama Cotton Yarns Company	Cotton spinning	
16)	Idleb Spinning Company	Cotton spinning	
17)	Hassakeh Spinning Project	Cotton spinning	
18)	Al Furat Spinning Company	Cotton spinning	
19)	Idleb New Project	Cotton spinning, plan	
	Lattakia New Expansion Project	Cotton spinning, plan	
20)	Jableh New Project	Cotton spinning, plan	

4.3.2.1 Outline of companies

(1) Kind of business of the companies (factories)

As seen in the above list, the business of existing companies are broken down into 7 spinning, 1 weaving, 1 spinning/weaving, 1 weaving/dyeing, 3 integrated, 3 integrated using cotton and other textile material, 2 knitting/sewing.

(2) Capacity of equipment

Table 4.3-3 shows lists of production machinery by company. As for spinning capacity, the state-owned companies have 600,000 spindles in total as of March, 1997, 3% of the 167 million spindles in the world and 23,200 rotors for open end (OE) spinning. They also have 1,800 looms for weaving, 2 lines for knit bleaching, 3 lines for bleaching, 6 lines for dyeing, 5 lines for printing and 2 lines for yarn dyeing. As can be seen from the table, nine companies are only for spinning, one for weaving only, six for integrated, and two for clothing. The share of the state-owned company in midstream and downstream of the Syrian textile industry is very little.

(3) Production and products

Production and products by state-owned cotton spinning companies are summarized in Table 4.3-4. As a characteristic of the state-owned spinning companies, they are mainly producing coarse or medium count cotton carded yarn. (only very small amount of combed yarn and Ne 40 or above yarns are produced.) Almost all at the fabric manufacturing units are for woven fabric and those for knitted fabric are very few. Although they are producing a variety of processed fabrics such as bleached, dyed, printed, yarn dyed fabrics, they are not suitable for high quality textiles. As for production, it was found that some production quantities in the table were counted twice along with the process and different units were applied to the same items.

(4) Present situation and problems (For details, please refer to ANNEX-I)

The Cotton spinning sector is monopolized by the state-owned companies. The private sector is permitted to enter an integrated factory of spinning/weaving/knitting/dyeing of cotton and cotton/synthetic blended

spinning. Such private companies are found in Aleppo (Sabbagh and Sharabati, and Deiry Tex). There are some weaving and dyeing/finishing factories in the state-owned textile companies, but these are mostly in the integrated form. There are 4 state-owned knitting and clothing companies but the size of their business is small. Therefore, it is again noted that those textile business owned by the government are mostly in upper streams related to raw cotton. This means that the middle and lower streams of textile business (knitting, weaving, dyeing and sewing) are in the hand of the private companies.

(5) Other problems

The state-owned companies should make an effort to improve yarn quality with a recognition that they are responsible to supply users with high quality yarns. Presently, yarns made by the state-owned companies are easy to break which will deteriorate quality of woven or knitted fabrics. Moreover, it is suggested to increase proportions of combed yarn production in order to add values and strengthen competitiveness in the market.

4.3.3 State-Owned Wool Company

There are 6 companies involved in the production using wool materials. (Table 4.3-2)

Table 4.3-2 STATE OWNED TEXTILE COMPANIES (WOOL)

	Name of the company	Process	Other
1)	General Company for Carpets	Wool Jacquard loom, carpet	
2)	General Company for Modern Industry	Wool worsted spinning, blended spinning, weaving, dyeing	(Synthetic blended spinning)
3)	Al Ahlich Company for Spinning & Weaving	Wool worsted spinning, weaving, dyeing	(Cotton spinning, weaving, dyeing)
4)	Aleppo General Company for Silk	Wool carpet	(Cotton weaving, dyeing, synthetic carpet)
5)	General Company for Wool	Woolen spinning for carpet	
6)	United Industrial Commercial General Company	Woolen spinning for carpet	(Cotton spinning, weaving, dyeing)

4.3.3.1 Outline of the companies

(1) Kind of business of the companies

There are 6 companies in total as follows:-

- spinning for carpets :2
- carpet manufacturing :2
- wool spinning, weaving and processing :2

(2) Capacity of equipment

Table 4.3-5 shows production capacity by each company dealing with wool related business. A total of 28,456 spindles for worsted yarn spinning, 11,864 spindles for woolen yarn spinning, 245 looms and 5 lines of processing facilities are equipped under the state-owned companies. As of 1995, there are 6 million spindles for worsted yarn in the world (Italy's 1.9 million spindles is top followed by Japan's 1.0 million), thus Syria shares less than 1.0 % in the world in respect of production capacity of worsted yarn. This is due to unavailability of high quality raw wool in Syria. Spinning for carpet yarn also accounts for 0.5 % in the world

(3) Production and products

Production and products by each company is summarized in Table 4.3-6. Wool fibers obtained from sheep in China, Iran, Turkey and Syria are quality problem such as coarse and solid fiber, small crimp and less milling. Therefore they are used for the flooring carpets. In this sense, the Syrian wool industry is not in the worsted textile but in the carpet making. Although it has 2 worsted yarn factories, the necessary raw materials are totally imported from Australia.

(4) Present situation and problems (For details, please refer to ANNEX-I)

Wool spinning and wool carpet manufacturing are allowed only to the state-owned companies. Carpet manufacturing using non-wool are permitted in the private companies and there are 15 companies now. As for high grade wool textiles, no suitable raw materials are available in Syria, thus, most private companies are making ladies' and gentlemen's suits by using imported raw materials.

1) Carpet yarn spinning

The spinning of carpet yarns is being made by 2 companies, i.e. United Industrial Commercial General Co. and General Company for Wool. The former sells its yarn to the private carpet manufacturers and domestic hand-loom carpet weavers. The latter sells its yarns to the 2 state-owned companies, i.e. General Company for Carpet and Aleppo General Company for Silk Weaving. In order to offset the poor quality of Syrian wool such as rough quality, shorter and irregular staple length, many hairy wool, less crimps, etc., Syria is importing raw wool from New Zealand and mixing it with a proportion of approximately 80/20 (New Zealand/Syria) in spinning. This is a problem in terms of cost. The proportion of Syrian wool may increase to some extent by improving spinning technique mainly in wool sorting and carding processes. We observe that an excessive generation of neps and short fibers at pre-spinning process is resulting in the occurrence of yarn breakage and coming-off of short fibers in the carpet weaving process.

2) Carpet manufacturing (Weaving)

Carpets are manufactured by 2 companies, i.e. General Company for Carpet and Aleppo General Company for Silk Weaving. The quality of carpets made by these companies are not the same as each other. The carpets of lower quality produced by one company has more coming-off of short fibers, more fluff, low dyeing technology unable it to get vivid color, etc. As both companies are purchasing carpet yarns from General Company for Wool, it is necessary for them to take integrated measures. Yarn is a decisive quality factor in carpets.

3) Worsted integrated

Both General Company for Modern Industry and Al Ahlieh Company for Spinning and Weaving are integrated factories for worsted yarn, using imported wool tops as raw materials, fairly good quality of their products is maintained. However, when the delivery of raw materials is retarded, it will directly cause unstable production and supply shortage. In addition, this will inevitably increase manufacturing cost, which will lead to weak competitiveness when exported. It is hoped that through improvement in

spinning technology the mixing proportion of Syrian wool will be increased to the maximum extent. It is also urged to add to the values of products by spinning finer yarn and improving dyeing technology.

4.3.4 State-Owned Silk Company

Only one company, Draikeesh Natural Silk Company, is dealing with silk production. It imports silkworm eggs from Japan and sublets sericulture of silkworms to farmers nearby. It purchases cocoons from them and makes silk yarn for domestic silk weavers.

4.3.4.1 Outline of company

(1) Production capacity, production, products and employees

The company has the following machinery:-

- Cocoon Dryer:	1
- Cocoon Cooker:	1
- Manual Reeling Machine:	1
- Automatic Reeling machine:	1
- Re-reeling Machine:	1
- Winder	1

The production capacity of silk yarn is approx. 12 tons/year and in view of the size, machinery and production of the company, it is assumed that this company was established on a test-pilot basis. Produced yarn is dyed outside by commission company and wind up in the form of either hank or cone, and then delivered to the users. The trend in production has been downwards, i.e. 10.6 tons (1992), 10.2 tons (1993), 9.8 tons (1994), 3.4 tons (1995) and 2.6 tons (1996). This company operates only in June and July every year and it has 30 employees in total.

(2) Present situation and problems

According to the laboratory test on silk samples collected by the first study team in March 1997, their average fineness turned out to be 49 denier and its usage is esteemed as for carpet. And quite a few large knots were observed here and there and it will not be possible to export these products.

As the Syrian silk is high cost and low quality, the marketing will be very difficult. If the government wants to develop this sector seriously, it is necessary to establish development plan for sericulture and the silk industry, including its application and market research.

Table 4.3-3 COTTON TEXTILE EQUIPMENT IN PUBLIC SECTOR

	Spinning (Spindles for cotton spinning)	Weaving (No. of loom)	Dyeing and Finishing (No. of line)	Knitting (No. of knitting machine)	Sewing (No. of sewing machine)
Al Shark			Bleaching/Finishing 1	92	13 line
Arab Underwear's			Bleaching/Finishing 1	22	81
Lattakia Weaving	25,000	184	Dyeing/Finishing 3 Rotary/Roller printing 1		
Al Ahlieh	6,048	124	Dyeing/Finishing 1		
Gen. Co. for Silk		166	Yarn Dyeing 1		
Lattakia Weaving		392			
Lattakia Spinning	120,432				
Jableh Spinning	75,528				
Homs Spinning	5,040	140	Bleaching/Dyeing/ Finishing/Printing 1		
Al Waleed	67,000				
Al Khomasieh	34,776 Viscose spinning 6,240	180	Bleaching/Dyeing/ Finishing/Printing 1		
Dibs	14,160	318	Dyeing/Printing/ Finishing 1		
Al Shahba	9,984 OE 2,800R	72			
Syri.Co. for Sp/Weav.	25,600	238	Yarn dyeing/Bleaching/ Dyeing/Printing/ Finishing 1	6	6
Hama Cotton	72,608				
Idleb Spinning	OE 20,400R				
Hassakeh Spinning	35,000				
Al Furat Spinning	100,560				
Total	591,736 Sp OE 23,200R For rayon 6,240 Sp	1,814	Bleaching line for knitted fabric 2 Bleaching line for woven fabric 3 Dyeing line for woven fabric 6 Printing line for woven fabric 5 Yarn dyeing line 2	120	13 line & 87 sets

Source : Hearing data of The Study Team

Note : Equipment relating to other fibers than cotton is not included here.

Table 4.3-4 COTTON TEXTILE PRODUCTS & PRODUCTION IN PUBLIC SECTOR

	Products	Production/year
Al Shark	Cotton undershirts, shorts, T-shirts	750,000 dz
Arab Underwear's	Cotton underwear, T-shirts	270,000 dz
Magazel	Cotton yarn (Ne 17-20)	1,400 ton
	Jacquard fabric, canvas, printed fabric	3,500,000 m
Al Ahlieh	Cotton yarn, P/C blended yarn	?
	Cotton & P/C dyed fabric for bed sheets, table cloth, etc.	?
Gen. Co. for Silk	Cotton dyed fabric for workwear, military uniform, etc.	1,500,000 m
Lattakia Weaving	Cotton grey fabric for shirts, sheets, sack for sugar and cereal	20,000,000 m
Lattakia Spinning	Cotton combed yarn for knitting & weaving (Ne 24,30,32,36,40)	3,000 ton
	Cotton carded yarn for knitting & weaving (Ne 16,20,24,30,32)	12,000 ton
Jableh Spinning	Cotton carded & combed yarn (Ne 20,24,32)	6,600 ton
Homs Spinning	Cotton bleached & dyed fabric	4,000,000 m
	Cotton printed fabric	8,000,000 m
Al Waleed	Cotton carded yarn (Ne 12,20,24,30)	5,300 ton
Al Khomasich	Cotton carded yarn (Ne 6.5,8.5,10,12,14,16,20,24,30)	5,000 ton
	Cotton bleached fabric	5,600,000 m
	Cotton dyed fabric	5,600,000 m
	Cotton printed fabric	2,800,000 m
Dibs	Cotton carded yarn (Ne 6-20)	1,400 ton
	P/C blended carded yarn	300 ton
	Cotton & P/C grey fabric	17,000,000 m
	Cotton & P/C dyed & printed fabric	4,100,000 m
Al Shahba	Cotton carded yarn (Ne 12,16,20) & OE yarn	3,500 ton
	Cotton grey fabric	1,700 ton
Syri. Co. for Sp/Weav.	Cotton carded yarn	1,500 ton
	Cotton grey fabric	1,400 ton
	Cotton bleached fabric	900 ton
	Cotton dyed fabric	500 ton
	Cotton printed fabric	300 ton
Hama Cotton	Cotton carded & combed yarn (Ne 20,26,30,32)	7,400 ton
Idleb Spinning	Cotton OE yarn (Ne 5.5,7,8,10,12,16,20,24)	9,000 ton
Hassakeh Spinning	Cotton carded & combed yarn (Ne 26-39)	2,000 ton
	P/C blended carded yarn	100 ton
Al Furat Spinning	Cotton carded yarn (Ne 12,14,16,20,24,30)	10,000 ton

Source : Hearing data of The Study Team

Table 4.3-5 COTTON TEXTILE EMPLOYMENT IN PUBLIC SECTOR

	No. of employees		No. of employees
Al Shark	1,300	Al Walced	1,485
Arab Underwear's	245	Al Khomasieh	2,850
Maghazel	1,400	Dibs	1,000
Al Ahlieh	700	Al Shahba	602
Gen. Co. for Silk	614	Syn. Co. for Sp/Weav.	928
Lattakia Weaving	850	Hama Cotton	1,311
Lattakia Spinning	2,050	Idleb Spinning	997
Japleh Spinning	2,100	Hassakeh Spinning	871
Homs Spinning	800	Al Furat Spinning	2,950
Total No. of employees	23,053		

Source : Hearing data of The Study Team

Table 4.3-6 WOOL TEXTILE EQUIPMENT IN PUBLIC SECTOR

	Wool washing No. of line	Spinning No. of spindle	Weaving No. of loom	Dyeing & finishing No. of line
Gen. Co. for Carpet			Jacquard loom 24	Finishing machine 1
Gen. Co. for Mod. Ind.		Worsted 10,456	76	Dyeing & Finishing 1
Al Ahlieh		Worsted 18,000	124	" 1
Gen. Co. for Silk			Jacquard loom 21	" 2
Gen. Co. for Wool	1	Carpet 4,984		
Al Khomasieh		Carpet 6,880		
Total		Worsted spinning 28,456 Carpet spinning 11,864	Normal loom 200 Jacquard loom 45	5

Source : Hearing data of The Study Team

Table 4.3-7 WOOL TEXTILE PRODUCTS & PRODUCTION IN PUBLIC SECTOR

	Products	Production/year
Gen. Co. for Carpet	Wool 100% carpet	600,000 m
Gen. Co. for Mod. Ind.	Wool 100%, wool/polyester, acrylic 100%, wool/acrylic, polyester/rayon yarn for internal use	480 t
	Wool 100%, wool/polyester, acrylic 100%, wool/acrylic polyester/rayon fabric	3,000,000 m
Al Ahlich	Wool 100%, wool/polyester, acrylic 100%, wool/acrylic yarn	?
	Wool 100%, wool/polyester, acrylic 100%, wool/acrylic fabric	?
Gen. Co. for Silk	Wool carpet	145,000m ²
	Other synthetic fiber carpet	45,000 m ²
	Wool jacquard fabric for home use	72,000 m ²
Gen. Co. for Wool	Wool 100% carpet yarn	800 ton
Al Khomasieh	Wool 100% carpet yarn	?

Source : Hearing data of The Study Team

Table 4.3-8 WOOL TEXTILE EMPLOYMENT IN PUBLIC SECTOR

	No. of employees
Gen. Co. for Carpet	350
Gen. Co. for Mod. Ind.	690
Al Ahlich	700
Gen. Co. for Silk	614
Gen. Co. for Wool	566

Source : Hearing data of The Study Team