

7. Development Strategies and Goals

7.1 Development Strategies

7.1.1 Basic Premises for Formulation of Development Strategies

Comparative advantages and major constraints on the textile and clothing industry in Syria, which are basic premises for formulation of development strategies of the textile industry in Syria are summarized in Table S7.1-1. The details are as follows:

(1) Comparative advantages for Syria

1) Textile raw materials

The country is a cotton producer as well as exporter.

2) Labor cost

Low labor cost (the lowest level among countries close to the EU). This is a big advantages in clothing export. (See 6.3 for detail).

3) Market

(a) It is close to a huge textile and clothing market in Europe, accessible by land transportation. This is the most important factor for clothing production to meet quick response (QR) requirements.

(b) Syria is not subject to import quota restriction on textile product imposed by the EU and the U.S. Particularly, the EU grants to Syria a special license "Europe-1" to export to the EU without Quota and without import duties.

4) Activated private companies

(a) The existing textile industry is clearly divided up into state-owned companies which are mainly responsible for upstream operations to produce cotton spun yarns, and private companies which handle midstream and downstream operations. These private businesses are oriented to processing imported synthetic fibers as well as locally produced cotton products, and are much larger in terms of employment and sales (see 4.5 for detail) than their public owned counterparts.

(b) Some private companies have profitably exported clothing (using Syrian cotton and/or sewing imported materials) to the EU and the U.S.

5) Technology

The textile industry in Syria is a traditional industry with a long history. It has a wealth of technical know-how and occupies a very important position in the country's manufacturing sector.

6) Infrastructure

The Country's infrastructure, including roads, ports and harbors, and electricity is well developed.

7) Political stability, etc.

There is political and macroeconomic stability, with many Syrian merchants living overseas.

(2) Major constraints on the textile and clothing industry in Syria

1) Textile raw materials

(a) Pricing and supply of raw cotton and cotton products are decided by the government.

(b) International competition does not exist in the price and quality of raw cotton and cotton products.

(c) These are the serious obstacles for the development of private companies, and to attract foreign investment.

(d) Synthetic fibers are all imported.

2) Textile industry

(a) Most textile exports are made in raw cotton, and much less in the form of value added products. Thus, the situation discourages the growth of the textile industry which is capable of supplying exportable products (see Chapter 6.3 for detail).

(b) State-owned companies and private companies act separately without coordination, and neither of them seem to have any intention of promoting the textile industry out of national interest.

(c) In particular, state-owned companies, which virtually monopolize the cotton spinning business, seem to be preoccupied with their own interest by exporting high grade yarns produced at their new facilities, instead of supplying them to private companies. They simply fail to give consideration to the development of the entire textile industry, despite the fact that the stable supply of high grade yarns is an essential condition for private companies to produce exportable products.

- (d) Most existing textile machinery has deteriorated due to aging. In particular, old spinning machines mean the lack of ability to supply high quality yarns by the upstream sector which is virtually monopolized by state-owned companies, imposing a serious implication on the entire industry.
 - (e) There are a number of regulations having economic impact, covering a wide range of areas including exports and imports, price, foreign exchange, and the management of state-owned companies. Also, the effective tax rate is very high, and the financial system is undeveloped and has still to adopt business practices as in the West. There is also a lack of resources to support R&D and human resource development.
- 3) State-owned textile companies
- (a) As imports of cotton and cotton products are banned to protect local cotton farms and the textile industries, there is no competition based on product quality.
 - (b) As the textile industry in the country has long supplied products to the former USSR and Eastern European markets, the mindset of the industry is still set on production volume. Except for a handful of large private and state-owned companies, there is the apparent lack of thinking to give importance to quality, price, delivery schedule, as well as the customer, the market, and marketing.
 - (c) Employment is one of the objectives of state-owned companies.
 - (d) At present the state-owned companies have plans for a significant increase in spinning capacity. If spun yarns from these new mills are supplied to private companies in large quantities, the problem of unstable supply of high quality spun yarn will be solved. At the same time, however, they have to find the market for spun yarns with lower quality, which are produced at older spinning mills.
 - (e) Many state-owned companies are not capable of manufacturing exportable products (due both to equipment and technology), and thus do not have marketing ability to sell their products to the international market.
- 4) Private textile companies
- (a) Private companies are mostly family owned, including large corporations, and managed with own capital.

- (b) This imposes limits on growth of the private sector in terms of the number of companies as well as to corporate size.
 - (c) The country fails to attract foreign investment, and there seem to be numerous obstacles to it, including high taxes, foreign exchange, the undeveloped financial system, sudden changes in the law and legal systems, and the lack of incentives.
- 5) Political stability
- With the persisting Arab-Israel conflict, Syria is still viewed as a risky country in the international community.

(3) General

- 1) The volume of synthetic fiber imports is larger than the input of local cotton to the textile industry.
- 2) Private textile companies carry out most of the processing of imported synthetic fibers.

7.1.2 Development Strategy

The basis of the strategy must be ample utilization of low cost labor and produce labor content clothing and textile products, and export them.

7.1.2.1 Export of cotton products, particularly clothing (using locally produced cotton)

- (1) Cotton should be exported after being processed to clothing

Cotton should be processed locally into cotton textile products, especially clothing, for export to the EU and the U.S., instead of exporting raw cotton. As discussed in Chapter 6, clothing trade is expanding as a proportion of world textile trade is continuing to increase. Syria should capitalize on the trend and expand clothing exports by leveraging its low labor costs.

- (2) Supply of high quality cotton yarns to private companies

To achieve this, the new spinning mills which are being constructed and planned for the export of spun yarns should instead supply high quality yarns to private companies in midstream and downstream processes, enabling them to process and export as value added products, particularly clothing. Then,

industry-wide efforts should be made to promote exports, from downstream to upstream. It is important to realize that exports of spun yarn do not include labor content and require higher packaging and transportation costs/unit value than higher value added products while exportable textile products cannot be produced without high quality yarns. By taking advantage of the fact that state-owned companies play a major role in spinning, high quality yarns (including combed yarns) can be made available to private companies which in turn can increase exports of final products.

(3) Private companies should be encouraged to enter the cotton spinning business

Furthermore, the private sector should be encouraged to enter the spinning business to spur competition with state-owned companies, which will help strengthen international competitiveness in terms of quality, price, and delivery. At present, private companies allowed to enter into spinning operations are limited to those having integrated processes from spinning, knitting, weaving, and dyeing and finishing, in addition to the spinning of blended yarns with synthetic fibers.

(4) Export to the EU and the U.S.

The primary export target is the EU. Some private companies are already successfully exporting knitted products to the region. The EU does not impose import quotas on Syrian products. The second target market is the U.S. to which some private companies already have a track record. The U.S. does not set import quotas against Syrian textile products.

7.1.2.2 Exports of clothing (using imported fabrics and sub-materials)

(1) Export of clothing using imported fabrics(OPT)

It is recommended to seek OPT export opportunities by fully utilizing the country's major advantage in labor cost to sew imported fabrics and sub-materials into clothing for export.

OPT (outward processing trade): "One form of production and trade under which raw materials are exported from a country to another country where they are processed or assembled (value added) into a product by using its

proprietary technology or low labor cost, which is finally re-imported to the original country." (definition of Japan Chemical Fibers Association)

- (2) Syria should utilize its advantages of low labor costs and the existence of a major market nearby, i.e. the EU

The current state and outlook for exporting and importing countries in world clothing trade are discussed in detail in Chapter 6. The general trend is, importing countries (the EU, the U.S., and Japan) increase their imports, while exporting countries (China and other Asian countries) boost exports. This clearly reflects the fact that labor costs account for major portions of clothing production. Labor costs account for 35-50% for clothing and 15-20% for fabrics. As Syria offers relatively low labor costs, it is in a favorable clothing export position, together with the presence of a major market nearby, the EU. Syria should realize clearly that Syria satisfies these favorable conditions.

- (3) Export to the EU, the U.S., and Syria's neighboring countries

The target export market is the EU, the U.S. and the neighboring countries. Some of private companies are successfully exporting products which are sewed by using imported fabrics and accessories to the EU, the U.S. and the neighboring countries, together with domestic sales. Some of the private companies are almost totally exporting their products and not selling to the domestic market. Expansion of these activities of private companies are very important. The EU, and the U.S. do not set import quotas on Syrian products and do not restrict imports of textile products from the country.

7.1.2.3 Efficient use of existing textile processing facilities

- (1) Efficient use of existing state-owned spinning facilities

Syria has textile processing equipment with capacity equivalent to 100,000 tons/year.

Although many of these have deteriorated, they can be utilized more efficiently for higher productivity and quality.

The public sector is undergoing a large scale expansion of cotton spinning, after completion, good quality yarn will be amply available to the market; but

how utilization of the old existing spinning factories will take place thereafter will become an important issue.

(2) Reallocation of existing production facilities of state-owned companies

Existing textile machinery of state-owned companies (see ANNEX-9) poses various problems.

Suppose a company uses new weaving machines side by side with old spinning and dyeing machines, and another company uses new spinning and dyeing machines while their weaving machines are old. In both cases, the new machines cannot maximize their performance as they are operated with the older machines, which are unable to manufacture products of higher quality. Moreover, the situation adversely affects the morale of the workers.

In this case, the best solution is to develop a reallocation plan and an integrated facility upgrading plan for the two companies to ensure productive investment, rather than allowing them to act separately. Similarly, two companies which have both spinning and weaving lines may be encouraged specialized in either process.

Another example is a company which has spinning, weaving, and dyeing machines, where the spinning machines are old. In this case, the company may wish to purchase spun yarns from outside and focus on weaving and dyeing, which may prove to be more economical than investing in new spinning machines.

(3) Export of textile products produced in the existing production facilities of state-owned companies

Production of textile products which can be exported by using low quality yarns from existing textile companies must be investigated.

Actual examples are to produce coarse yarns and then produce thick fabrics; the required quality level of these products is comparatively low compared to thin fabrics.

7.1.2.4 Import substitution

- (1) To shift imports from spun yarns blended with synthetic fibers to synthetic SFs

Syria's textile imports are dominated by synthetic fibers. It is not feasible to replace imported synthetic fibers with locally produced cotton because of the difference in functional requirements between them. Instead, the basic strategy should focus on efforts to shift imports from spun yarns blended with synthetic fibers to synthetic SFs for spinning in the country. This serves as import substitution in the form of expanding operations to the upstream sector.

- (2) Supply of fine count cotton spun yarns (combed yarns) to private companies

Synthetic fibers account for around 54% of textile and clothing consumption in Syria, considerably higher than the world average of 40%. Although the specific reason for this is unknown, consumers may prefer imported synthetic fiber products to domestic cotton products on account of better quality. Further, as the production volume of Syrian cotton, which is suitable for producing fine count yarns is limited, imports of textile products made of fine count yarns will occur. If this is the case, local production of cotton products of good quality and at low cost could lead to import substitution.

7.1.2.5 Utilization of domestic wool and silk

- (1) Improvement in the domestic wool quality by the improvement in the breed of sheep and an increase in the blending ratio of Syrian wool with imported wool for carpet manufacture should be investigated.
- (2) Export of silk must be investigated by the introduction of a collective production system of the cocoons, which enables the reduction of production costs and improvement in quality of the cocoons and silk yarns.

§7.1-1 BASIC PREMISES FOR FORMULATION OF DEVELOPMENT STRATEGIES OF TEXTILE INDUSTRY IN SYRIA

	Comparative advantage	Major constraints
Raw materials	<ul style="list-style-type: none"> - Cotton producer as well as exporter 	<ul style="list-style-type: none"> - Pricing and supply of cotton are decided by the government. - International competition does not exist in price and quality of cotton. - These are the serious obstacles for the development of private companies, and to attract foreign investment. - Synthetic fibers are all imported.
Labor cost	<ul style="list-style-type: none"> - Low labor cost 	
Market	<ul style="list-style-type: none"> - Close to the EU, a huge textile market - No quota restriction to export to the EU and the U.S. 	
Textile industry		<ul style="list-style-type: none"> - Exports are made in raw cotton, and much less in value added products. - State-owned companies and private companies act separately without coordination. - State-owned companies export high grade yarns instead of supplying them to private companies. - Most existing machinery has deteriorated due to aging. - Lack of resources to support R&D and human resource development.
Private textile companies (mainly in midstream and downstream)	<ul style="list-style-type: none"> - Activated private companies are mainly responsible for midstream/downstream operations and are much larger in employment and sales than state-owned companies - Some private companies have profitably exported clothing(using Syrian cotton and/or sewing imported materials) to the EU and the U.S. 	<ul style="list-style-type: none"> - Mostly family owned and are managed with own capital. - Limits on growth In the number of companies and in corporate size. - No foreign investment.(high taxes, foreign exchange, undeveloped financial system, sudden changes in law and legal systems, and lack of incentives)
State-owned textile companies (mainly in upstream: spinning)		<ul style="list-style-type: none"> - No competition based on product quality due to import ban of cotton products to protect state-owned companies. - Lack of thinking to give importance to quality and customers. - Employment is one of the objectives of state-owned companies. - Have to find the market for spun yarns with lower quality, which are produced at older spinning mills. - Many companies are not capable of manufacturing exportable products.
Technology	<ul style="list-style-type: none"> - Traditional industry with a long history and occupies a very important position in the manufacturing sector. - Developed to reasonable extent. - Stable 	
Infrastructure		
Political stability		<ul style="list-style-type: none"> - Viewed as a risky country in the international community.

7.2 Development Goals

7.2.1 Export of Knitted Products Using Syrian Cotton

Major competitors include China, Turkey, Bangladesh. While it is desirable for Syria to set its development goal at the highest practicable level, the goal should preferably be set at several stages, in consideration to a number of constraints facing the industry, such as the timing of stable supply of good quality cotton spun yarn, the period necessary for the expansion of midstream and downstream processes in the private textile companies, the apparent lack of quality concern in the industry, and the deteriorating textile processing equipment. The development goals will be set in terms of quality, price, and delivery (timing).

(1) Quality level

Aleppo 33/1, the highest grade variety of Syrian cotton, should be used as a raw material, and the cotton spun yarns produced by the new spinning mills should be used for producing the knitted products to be exported.

The target quality level of clothing is that offered by products made in China and Bangladesh.

(2) Price level

It is very difficult, if not impossible, to foster export-oriented manufacturers or expand production of existing manufacturers over a short period of time, as it involves long-term efforts to improve workers' skills. Instead of setting a high goal from the beginning, the initial goal should aim at low-priced products which can compete with those from China and Pakistan in the EU market.

On the other hand, companies which have already made a success of exporting to the EU and the U.S. should work at technical upgrading and strengthening of their competitiveness to provide products at higher price levels.

(3) Steps toward expansion

Major constraints on expansion are the availability of spun yarns in the upstream sector and capabilities of processing the yarns in midstream and downstream sectors, namely knitting, dyeing and finishing, and sewing. First of all, the new spinning mill in Lattakia has already come on stream and is now producing spun yarns of good quality. The new mill in Idleb is scheduled to start operation soon. So long as these new mills are operated smoothly, the supply of spun yarns of export quality should easily be assured.

On the other hand, it is estimated that there will be some available export capacity of knitting, dyeing/finishing, and sewing processes, because at present these capacities are not fully utilized.

7.2.2 Export of Clothing (Using Imported Fabrics and Accessories)

Major competitors include Turkey, the former Eastern Europe, Tunisia, Morocco, and India.

All of the countries which have rapidly expanded exports of clothing, including Bangladesh, Vietnam, and Turkey, have accomplished their results by enticing foreign capital. The sewing business does not use local materials and requires only manpower and sewing equipment. As a result, investment is smaller than for textile production such as spinning and weaving, and production can start within a very short period of time. The ability to turn a large number of people into a highly productivity work force within a short period of time and as small investment cost is the major reason why the above countries have rapidly boosted exports of clothing.

Thus, once the government provides a good investment climate for foreign capital, the industry has potential to achieve rapid growth. In fact, exports of clothing can be carried out much more easily than that of clothing which uses Syrian cotton.

Finally, exports of clothing can serve as a success model for the export of knitted products using local cotton, thus allowing smooth entry.

(1) Quality level

Since raw materials and accessories will all be imported, quality is solely governed by sewing techniques. While there are many competitors, the Syrian industry will be able to achieve a high quality level as evidenced from the success of various private companies which already export to the EU and the U.S. The major challenge is how quickly a large number of companies will be able to take advantage of wealth of know-how built by the pioneering companies over a decade or two, including quality awareness, quality control techniques, quick response practice, employee training to improve sewing techniques, and good labor relations. In this connection, the introduction of foreign capital and technology in the form of licensing or alliances holds the key, as seen in many other countries which have made successes in clothing exports.

(2) Price level

The cost of clothing is determined by unit labor cost and work efficiency. While the former is not a problem, the improvement of work efficiency requires education and training. Naturally, this is done by many countries and can easily be accomplished in Syria if suitable foreign partners are found.

The fact that some private companies have established themselves in the export of clothing proves the potential competitiveness of the Syrian industry.

(3) Steps toward expansion

Factors limiting expansion of the industry are discussed in 4.4.3.

7.2.3 Efficient Use of Existing Processing Facilities

This is a project to produce textile products which can be exported by using low quality yarns from existing textile companies. Actual examples are to produce thick fabrics such as jeans, working uniforms, and household textile products such as sheets and curtains.

(1) Quality level

All the products does not require high quality level. As the manufacturing of working wears involve labor cost as added value, the exportable quality should be the target in future.

(2) Price level

The target price level should be low level.

(3) Steps towards expansion

At the first step of the development, the domestic market should be the target. After establishing and confirming the technology level, exports market should be the target.

7.2.4 Production of Synthetic Fiber Blended Yarns (Import Substitution)

Currently imported yarns blended with synthetic fibers will be replaced with synthetic SFs to localize production of blended yarns. The products will be used for local consumption, rather than export.

(1) Quality level

The target quality level should be set at the level suitable for domestic consumption. Export quality will not be considered for some time as it is not viable to compete with Asian products.

(2) Price level

The target price level should be lower than that of imported blended yarns.

(3) Steps towards expansion

The finest blended yarn which can be produced by utilizing existing facilities will be Ne 40, due to the restrictive factors of the existing facilities. To substitute imported products by domestic production, producing Ne 45 requires the constructing of a new integrated plant consisting of spinning, weaving and dyeing and finishing.



8. Proposals for Textile Industry Promotion

Direction of Syrian textile industrial development lies in export promotion of clothing along the international framework and trend of textiles and clothing trade. The private sector is playing the main role in this field. The details of the projects, which are considered appropriate to be implemented, are described in Chapter 9,10 and 11. The outline of the projects is summarized in this chapter. Each of them has been discussed in the course of the 2nd field survey with the Syrian counterpart team and have been selected from a long list of possible projects.

This chapter presents the proposal package for promotion of the textile industry, consisting of the upgrading of promotion policies, projects at company level, and the improvement of support functions. Figure S8-1 summarizes its general outline, where the projects at company level are listed with accompanying promotion policies and support functions which need to be strengthened to achieve the objective. The details of the projects at company level, including export and import plans, the division of responsibility between state and private companies, are summarized in Figure S8.3-1.

8.1 Improvement of Promotion Policies

The following proposals have the objective of contributing to further advancement of the nation by achieving a more efficient market economy, flexible management of public companies, and proper administration over private companies. Institutional improvements recommended here also involve other sectors than the textile industry. The following are described in detail in Chapter 9.

(1) Schedule for Liberalization of Foreign Trade and Investment

1) Import restriction

The Arab Countries Free Trade Area (ACFTA) starts to function at the beginning of 1998 and has the purpose of lifting all import controls and reducing customs duties to zero by 2007. Syria should announce its schedule of trade liberalization in the near future, in coordination with ACFTA plans.

2) Management of foreign currencies and foreign exchange rates

Foreign currencies are held by governmental bodies, the Commercial Bank and private exporters and are exchanged at rates that are determined according to the

status of the parties involved. Syria should integrate and transfer management of the exchange process to the Central Bank so that all transactions can be done at a single rate.

3) Market participation of private business in the public monopoly sector

Public monopolies still remain in some sectors. Syria should consider opening these sectors to the private sector.

4) Promotion of foreign direct investment

Law No.10 (1991) was enacted to promote foreign direct investment but has not yielded fruitful results. Syria should remove, step by step, the obstacles preventing the law from accomplishing its purpose.

(2) Relaxation of Price Controls

1) Price determination based on demand-supply relations rather than cost plus profit

Syrian pricing system has been based on the cost-plus-marginal-profit principle, but this is not realistic. Syria should change this practice for more realistic one.

2) Elimination of price reporting system for less important items

A price reporting system is a meaningless burden for producers except in case of monopoly or oligopoly. Syria should stop imposing reporting requirements for less important goods.

3) Reduction of items for government decision

The government itself decides on many prices or prices changes. Syria should consider to reduce the number of these items.

(3) Modernization of the Banking System

1) Approval of foreign bank branches

The Syrian banking system is underdeveloped. The EU has helped Syria to start a modernization program but it will take many years to complete. Syria should authorize foreign banks to set up branches.

2) Liberalization of interest rates

Interest rates have been fixed for many years by regulation. Syria should liberalize the interest rate scheme.

3) Two-step loan for investment finance

Private companies always have a money shortage problem. If interest rates are liberalized, it will become very difficult to finance investment. If budget provisions for the funding of public companies are not sufficient, the latter has to seek other financial sources. Syria should consider use of two - step loans.

(4) Flexibility of Employment System for Public Companies

1) Re-assignment, internal promotion and dismissal of employees by the director-general

Public companies have to comply with Unified Labor Law (1985), which requires them to use bureaucratic procedures for employment matters. Syria should give autonomy in employment affairs to the director-general of each company.

2) Simplified appointment procedure

Nomination of high ranked directors in public companies is regulated by bureaucratic procedures. Syria should simplify these practices.

3) Frequent review of job descriptions

In public companies the directorate and its job descriptions have been fixed so many years. Syria should change the regulations so that job descriptions can be changed when needed.

4) New body to review wages in the public sector

The wages system of public companies does not conform to the realities of the current labor market. Syria should set up a new body to review the wage differences for the similar jobs between private companies and public ones, and make recommendations on necessary improvements.

5) **Re-regulation for public companies to free them from restraints under the current Unified Labor Law**

Public companies need more flexibility in employment practices if they are to survive. Syria should provide a new legal framework for them, freeing them from the requirements of the current Unified Labor Law.

(5) **Flexibility on Budget Plan Implementation for Public Companies**

1) **Bidding, contracts, travel abroad**

Procurement, contracts, travel abroad, etc. of a public company and its officials are regulated by the state budget rules. This is not realistic. Syria should relax the rule for public companies.

2) **Division of the state budget into a general budget and a special budget for public companies**

The state budget covers public companies. This is one of the most serious constraints they face. Syria should separate the state budget into two parts, that is for administration and for public companies.

3) **Correction of the imbalance in foreign exchange between state-owned and private companies**

The government strictly regulates foreign currencies under Decree No. 24. The privileged exchange rate which is applied to public sector companies for the importation of machinery will expire in 1998, after which the advantage enjoyed by the public sector over the private sector will be reduced. Furthermore, the disadvantage of public sector exporters who have to sell any surplus foreign currency to the government at a lower exchange rate than private exporters, and the disadvantage of non-exporting public sector companies in buying foreign currency than non-exporting private sector companies, will remain.

Syria should improve the management of foreign currencies to create a better balance between public and private companies.

(6) Orderly Activity of Private Businesses

1) Registration and periodical survey of business activities

There are many cases when private companies do not register. The government therefore cannot monitor their activities well. Syria should encourage private businesses to register with the Ministry of Industry and conduct a periodic sample survey on their activities.

2) Authorized audit office for financial report

The accounting system is established, but in actuality the practices are very poor. Syria should pass legislation authorizing creation of audit offices that will check the financial reports for public purpose.

3) Reduction of the corporation tax rate

The corporation tax rate, by being very high for larger companies, has the adverse effects of discouraging registration, honest reporting, or driving part of the private sector into the underground economy. Syria should consider reducing the corporation tax rate.

4) Setting up of private associations by sector and by region

The government has no administrative network for private companies. Chambers of Commerce and Chambers of Industry are functioning, but are not sufficient. Syria should encourage the private sector to set up voluntary business associations by sector and by region.

(7) Administration

1) Integration of General Organizations into Ministries

The public companies will be more independent in the future. General Organizations will lose their original roles. The government is urged to improve sectoral policies including those related to the private sector. Syria should integrate the current General Organizations with the related Ministries.

2) **Statistics and Laws**

Statistics are provided only on an annual basis, are poor in coverage of the private sector, and include many inconsistencies. It is difficult for businessmen to get copies of Laws, Decrees, Resolutions. Syria should improve statistics and set up a legal information center.

3) **Release of more information to the people on economic policy issues**

Syria provides much information to the people, but economic news is rare. Syria should provide more information on economic news and policy issues.

Figure S8-1 SUMMARY OF PROPOSED PROJECTS AND SUGGESTIONS

State-Owned Textile Companies

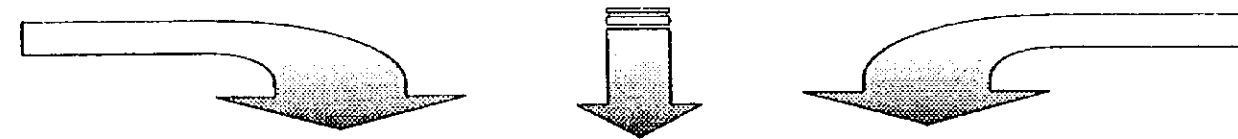
- 8.1-(4) Flexibility of Employment System for Public Companies**
 - 8.1-(4)-1 Re-assignment, internal promotion and dismissal of employees by the director-general
 - 8.1-(4)-2 Simplified appointment procedure
 - 8.1-(4)-3 Frequent review of job descriptions
 - 8.1-(4)-4 New body to review wages in the public sector
 - 8.1-(4)-5 Re-regulation for public companies to free them from restraints under the current Unified Labor Law
- 8.1-(5) Flexibility on Budget Plan Implementation for Public Companies**
 - 8.1-(5)-1 Bidding, contracts, travel abroad
 - 8.1-(5)-2 Division of the state budget into a general budget and a special budget for public companies
 - 8.1-(5)-3 Correction of imbalance in foreign exchange between state-owned and private companies
- 8.4-(2)-5 GOTI Laboratory
- 8.7 Productivity Improvement**

Private Textile Companies

- 8.1-(1) Schedule for Liberalization of Foreign Trade and Investment**
 - 8.1-(1)-3 Market participation of private business in the public monopoly sector
 - 8.1-(1)-4 Promotion of foreign direct investment
- 8.1-(6) Orderly Activity of Private Business**
 - 8.1-(6)-1 Registration and periodical survey of business activities
 - 8.1-(6)-2 Authorized audit office for financial report
 - 8.1-(6)-3 Reduction of the corporation tax rate
 - 8.1-(6)-4 Institution building of private associations by sector and by region

Export/Import

- 8.1-(1) Schedule for Liberalization of Foreign Trade and Investment**
 - 8.1-(1)-1 Liberalization of Foreign Trade
 - 8.1-(1)-2 Management of foreign currencies and unification of exchange rates
- 8.2 Export Promotion Measures**
 - 8.2-1 Tax exemption on export income
 - 8.2-2 Export finance
 - 8.2-3 Providing market information
 - 8.2-4 Export cooperative-Textile Exporters' Association
 - 8.2-5 Export Processing Zone



	<i>Export/Import</i>	<i>State-Owned Textile Companies</i>	<i>Private Textile Companies</i>
	Projects		
<i>Cotton, Wool, Silk</i>		8.3.1 <i>Export of Clothing made from Domestic Cotton</i>	
<i>Staple Fibers</i>		8.3.2 <i>Utilization of Low Quality Cotton Spun Yarn</i>	
<i>Yarns</i>		(1) <i>Workers Uniforms</i> (2) <i>Jeans</i> (3) <i>Household Textile</i>	
<i>Fabrics</i>		8.3.3 <i>Export of Clothing Using Imported Fabrics</i>	
<i>Dyeing & Finishing</i>		8.3.4 <i>Polyester/Cotton Blended Fabrics</i> 8.3.5 <i>Construction of HVI Laboratories</i> 8.3.6 <i>Maintaining Large-scale Spinning Factories</i>	
<i>Clothing</i>		8.3.7 <i>Wool : Future Vision</i> 8.3.8 <i>Silk : Mini-Plan</i>	

Supporting Services

- 8.4 Suggestion for Improving Supporting Services**
- 8.4-(1) Human Resources Development**
 - 8.4-(1)-1 Installation of equipment in Damascus Intermediate Institute
 - 8.4-(1)-2 Establishment of textile related faculty in Homs University
- 8.4-(2) Quality Control/Productivity Improvement**
 - 8.4-(2)-1 Installation of testing equipment of textile products in FTC/ITRC
 - 8.4-(2)-2 Centralized organization for publicity and guidance of quality control practice
 - 8.4-(2)-3 Packaging Development Center
 - 8.4-(2)-4 Reinforcement of equipment and staff of SASMO
 - 8.4-(2)-6 Textile and Clothing Development Centers

Promotion Policies

- 8.1-(2) Relaxation of Price Controls**
 - 8.1-(2)-1 Price determination based on demand-supply relations rather than cost plus profit
 - 8.1-(2)-2 Elimination of reporting system for less important items
 - 8.1-(2)-3 Reduction of items for government decision
- 8.1-(3) Modernization of the Banking System**
 - 8.1-(3)-1 Approval of foreign bank branches
 - 8.1-(3)-2 Liberalization of interest rates
 - 8.1-(3)-3 Two-step loan for investment finance
- 8.1-(7) Administration**
 - 8.1-(7)-1 Integration of General Organizations into Ministries
 - 8.1-(7)-2 Statistics and Laws
 - 8.1-(7)-3 Release of more information to the people on economic policy issues



8.2 Export Promotion Measures

The Table S8.2-1 shows the present availability of supporting services provided by the Syrian governmental and other organizations. In the table, basic export promotion measures usually required are shown under the group title "Export Promotion". The table shows that many measures are unsatisfactory or non-existent, and required in Syria. The Team chose several projects and discussed with the Syrian authorities. As a result, following suggestions and projects are selected:

1) Tax exemption on export income

This would remove some of contradicting nature the government policy in export promotion, and show government intention to promote export clearly to all Syrian enterprises, thus increasing the credibility of the cohesiveness of the government policy.

2) Export finance

The Team suggests that export finance system be introduced. In the process of export business, there are many occasions when exporters need financing; preparation for production, purchase of raw materials, sight given to buyers, etc.

3) Providing market information

The Chambers of Commerce and Industry are to set up a department or subsidiary organization to provide market information to Syrian textile companies.

4) Export cooperative - Textile Exporters' Association

The export cooperative involving public and private companies be set up under the Chambers of Commerce and Industry. This organization could serve as strong and effective communication channel between the government and the industry.

5) Export Processing Zone

Export processing zones with competitive utilities and facilities with incentives such as lower utility prices, better communication facilities, a single-window service etc. are to be established for promotion of export and inducement of foreign capital investment.

Table S8.2-1 AVAILABILITY OF SUPPORTING SERVICES

	Export Promotion					Human Resources Development					Technical Assistance							
	Export Tax Exemption	Export Finance	Market Information	Export Cooperative	Export Processing Zone	Seminar	Vocational Training	Intermediate Level Training	University Faculty	Extension Services	Research and Development	Inspection and Testing	Calibration	Certification	Standard	Packaging	Quality Control ISO9000	Technical Information
Universities									X									
Intermediate Institutes								P										
Vocational Training Centers							P											
SASMO						O						P			P		X	P
ITRC						O				O	O	P		P		X	X	P
ITC														P				
COTI Laboratory											P			X				
Cotton Bureaus										O				O				
Chamber of Commerce			P	X														
Chamber of Industry						P												
Textile and Clothing Center						P				P								P
JICA Exports											P				P		P	P
UNDP				P		P				P							P	P
SEBC			P	P											P		P	P
Min. of Finance	X																	
BANKS				X														
Min. of Industry				X														
Free Trade Zones					P													

Notes O means that the required service is available.

P means that the required service is partly available, and improvement of facilities etc. is required.

X means that the required service is not available, although the institute/organization is usually expected to render the service.

8.3 New Project at Company Level

Table S8.3-1 shows the relationship between the proposed projects and the development strategies discussed in Chapter 7. The projects are summarized in Figure S8.3-1 by identifying raw materials and processes to be used, and proposed implementation bodies. Note that the figure was prepared on the basis of Figures S4.1-1 and S4.1-8, and also lists production capacities of the Syrian textile industry by process and ownership (state/private company).

8.3.1 Export of Clothing Made from Domestic Cotton

As is described in more detail in Chapter 7.1.2, cotton should be processed locally to cotton products, especially clothing, for export to industrialized countries, instead of just exporting raw cotton.

To achieve this, the new spinning mills which have been constructed and those planned for the export of spun yarns should also supply high quality yarns to local private companies in midstream and downstream processes, enabling them to process and export value added products, particularly clothing. Then, industry-wide efforts should be made to promote exports, from downstream to upstream. An ample supply of high quality cotton spun yarn from the public sector to the private sector is essential for the success of this Project.

8.3.2 Projects to Produce Coarse Count Yarns and Heavy/Thick Fabrics by Utilizing Low Quality Syrian Cotton Spun Yarn.

The quality of spun yarns in the existing older state-owned spinning companies is not so good except in a few cases and their spinning machinery is almost worn out. From this viewpoint it would be more favorable to produce not fine count yarns but yarns of coarse count, those which are less demanding in terms of quality and production efficiency.

Three Projects are proposed as follows:

(1) Workers uniforms for export based on low quality spun yarn produced in existing textile companies

The percentage of the labor cost for sewing in the cost of production of workers uniforms is high, particularly for uniforms with as multi-functional requiring many sewing operations. From the viewpoint of Syrian competitiveness in labor cost and the experience in producing army uniforms, the production of 100% cotton workers uniforms for export is recommended.

1) Target market

At a first step, the market should be the domestic market, thereafter, the exports to the EU and the U.S. should be the target.

To conduct a national campaign which promotes the use of workers uniforms in the Syrian companies, particularly in the state-owned companies, is recommended.

2) Production facilities

The production facilities necessary for this project are already installed in the state-owned integrated spinning/weaving/dyeing and finishing companies and ready-made garment companies. However, improvement in production facilities and technologies will be necessary to respond to export market requirement.

3) Sewing facilities required, production capacity and raw material consumption(an example)

Products	:a set of jacket and slacks
Raw materials	:Cotton 100% woven fabrics (width 1.5 m, 153 g/m ²)
Out put	:2,000 pieces/day, or 580,000 pieces/year (4 pieces/day/machine)
Sewing machines	:500 machines, press iron. etc.
Workers	:600
Fabric consumption	:360 tons /year (1.5 m/jacket, 1.2 m/slacks, 2.7 m/set, 620 g/set)
Investment	:Machinery approx. 4 million US\$

- (2) Production of denim fabrics for jeans based on low quality spun yarn produced in existing state-owned textile companies

Denim is a fabric made from coarse spun yarns and is a heavy construction fabric. Private companies already in jeans fabric production: eg. "Sabbagh and Sharabati" is producing high-grade fabrics in modern integrated plants on a large scale for the high-priced market.

In Syria, jeans are quite popular among the nationals. Therefore, in addition to the high-priced market, a low-grade and low-priced market does exist.

A project for the production of jeans fabrics of lower quality for the low-priced market by utilizing the facilities of existing state-owned textile companies as follows.

- 1) Raw material:

Cotton OES yarn Ne 6. Al Shahba Spinning and Weaving, and others are assumed to be the suppliers of yarn.

- 2) Required yarn quantity, and production:

Yarn: 9,800 tons/year, production: 12,000,000 m/year

- 3) Estimated investment cost:

9.2 million US. dollars (Main machinery, auxiliary machinery and spare parts)

- (3) Production of household textiles based on low quality spun yarn produced in existing state-owned textile companies

The project aims at the production of wide fabric for home use, such as bed sheets, covers, curtains, etc. by using coarse count spun yarns.

However, as the percentage of the labor cost in the total production cost of household textile products is relatively low, competitiveness in the international market will be limited. The market will, therefore, be limited to the Syrian domestic one.

- 1) Raw material:

Gray cloth woven from carded yarn of warp and weft count Ne 14 and with the number of ends 56 x 55/inch. Woven width : 105 inch (2,667 mm).

2) Required yarn quantity:

4,600 tons/year

3) Product:

Cotton 100% fabric of home use products (bleached 50%, printed 50%), Finished width : 2,530 mm, Weight 1,530 g/linear m (575 g/m²)

4) Production plan and required equipment:

10,000 m/day, which can be produced by one shift operation running 4 jiggers.

5) Estimated investment cost :

About 8 million US\$.

8.3.3 Export of Clothing Using Imported Fabrics and Accessories

It is recommended to seek OPT (Outward Processing Trade, refer to 7.1.2.2) export opportunities by fully utilizing the country's major advantage in low labor cost to sew imported fabrics and accessories into clothing for export: this type of export is thriving in Asian countries as the export of their labor.

The target export markets are the EU and the USA. The EU and the USA do not set import quota on Syrian products and do not restrict imports of textile products from the country.

8.3.4 Construction of an Integrated Factory of Polyester/Cotton Blended Spinning, Weaving, and Dyeing and Finishing

The Team proposes to construct a new integrated plant, not utilizing existing plant, for polyester/cotton blended: spinning, weaving and, dyeing and finishing plant.

The new plant will produce fine count yarns of Ne 45; of polyester/cotton = 50/50% existing spinning plant, which can produce Ne 32 100% cotton yarn, may produce polyester/cotton blended yarn of maximum Ne 40 due to the limited functions of the existing machinery. The dyeing of polyester fiber cannot be carried out in the same way as cotton dyeing.

A detailed explanation of this project is as follows:

- (1) Purpose: Import substitution of foreign cotton textile products by Syrian cotton, and the substitution of polyester/cotton blended yarns and fabric imports by polyester staple fiber imports.
- (2) The private sector will not easily enter into this business, because high investment is necessary for constructing integrated plant.
- (3) Products: Polyester/cotton = 50/50% yarns and fabrics for shirting.
(If polyester/cotton = 65/35% finer yarn can be produced.)
- (4) Production machinery and production.
Spinning: 57,344 S/P, 4,600 t/y
Weaving: 235 looms, 5,000 t/y
(Blended fabric 3,000 t/y, Cotton fabric 2,000 t/y)
Dyeing: Fabric dyeing and yarn dyeing.
- (5) Total investment will be roughly 100 million US\$.

8.3.5 Construction of Cotton Inspection Laboratories-Introduction of HVI (High Volume Instrument)

8.3.5.1 Significance of Introduction of HVI

The introduction of HVI has automated and unified the conventional fiber bundle testing, permitting a tremendous increase in testing capacity and sample throughput. Its data is objective and accurate, and independent of personnel factors and is reliably used by cotton growers, ginning factories, exporters, classifying stations and spinning mills.

8.3.5.2 Suggested Projects

To construct three cotton laboratories equipped with 2 HVI sets each in Aleppo, Hama and Hassakeh respectively and provide a service for Cotton Bureaus, ginning factories, and cotton growing farmers.

8.3.6 Maintaining Stable Operation of the Newly Constructed Large-Scale Spinning Factories

A large-scale spinning factory was recently constructed in Lattakia, and further large-scale spinning factories are being planned in Syria. However, the production of many types of product, in small lots, by large-scale factories, which the market now demands, can result in a deterioration of productivity and difficulty in maintaining stable operations.

With reference to maintaining the stable operation of the large-scale spinning factory in Lattakia, and to the planning of future large-scale spinning factories in Syria, the current attitude regarding the construction of such large-scale factories worldwide is summarized as follows:

(1) Example of spinning mill scale in the world

- 1) The Indonesian textile industry has about 8 million spindles. In Indonesia, there are only 3 factories equipped with more than 100,000 spindles as cited above, even if you take into consideration the remaining two hundred or so. Two of the three factories are examples of successful cases, in which management is carried out thoroughly employing more than ten expatriate engineers from Taiwan, Korea, Hong Kong, India and Japan. The remaining factory is suffering from problems arising from its size, in terms of management and cost, and has been unsuccessful. The two successful plants were constructed more than ten years ago as complexes of many mills in the same company on the same site.
- 2) There are large-scale spinning factories of more than 100,000 spindles in Egypt, but they were divided into several mills/buildings and are run individually.
- 3) In India, there are enterprises possessing several spinning mills whose total installed spindles surpass 100 thousand. However, no single factory exists of this size.

(2) Conclusion

In conclusion, newly constructed factories with more than 100,000 spindles are now very rare in the world. In Syria, however, there are recently constructed new spinning factories with more than 100,000 spindles, and others are planned, which is exceptional.

The reason why spinning mills with more than 100,000 spindles are not now generally constructed is the difficulty in responding to the market need for many types of products in small production lots. In the era of fiber shortages in the former Soviet Union, high production of a few types of products was required, and for this large sized plants were constructed. Recently, however, customers needs have diversified and the economic production of many types of products is required; therefore, a production system which can respond quickly to customers' needs is required (Quick Response).

Large-scale spinning factories are not now generally constructed as they are not effective in producing many types of product, in small lots, at required modern productivity levels. The Team would, therefore, propose to divide the large-scale plant in Lattakia into two mills; a combed yarn mill and a carded yarn mill, and operate them independently, and for the mills to engage as many experts as possible for a long period of time so that they can be operated extremely efficiently.

Further, the Team would propose that the future construction of large-scale spinning factories be planned to meet the market needs of producing many types of product in small lots.

8.3.7 Wool "Future Vision"

A Future Vision for wool carpet production by a gradual increase in the blending ratio of Syrian wool is illustrated (Refer to Main Report Figure 10.7-1). This is based on the successful improvement in Syrian sheep breeding, which is being carried out in the research and development center of the public sector.

To achieve the goal of the Future Vision, improvement in sheep breeding is the most important factor. The objectives of the research and development center are improvements in meat and milk yields of the sheep along with the expected enhancement in wool quality. The improvement in wool quality attained will not be enough: in addition to this, a research and development for the improvement of wool such as breeding of sheep suitable for carpet production and cross breeding of sheep, must be carried out.

In addition to the above, improvements in the classification of raw wool and in spinning process controls and machinery are required. Also in modernizing the carpet factory it is planned to introduce computerized Jacquard looms to increase the number of new pattern designs. (as to the details of the modernization of spinning and carpet manufacturing, refer to ANNEX-4).

8.3.8 Silk "Mini-Plan"

For details please refer to ANNEX-6 "Mini-Plan" for Silk Production.

In order to establish the basis of high quality exportable silk yarn production, "mini-plan" for producing 13,500 kgs of silk yarn per year, which corresponds to one set of automatic reeling machine is proposed; cocoons are produced by cooperative unions of the farmers, not by individual farmer, to produce uniform quality cocoons with increased production.

8.3.9 Possibility of Polyester Fiber Production in Syria (Reference)

Syrian imports of synthetic fibers stand at approximately 80,000 tons/year. Of the imports, polyester fiber dominates with more than 40,000 tons/year.

Polyester is the most popularly and widely used of all synthetic fibers in the world. For reference, the present situation of polyester fiber production in the world is summarized (For detail refer to Main Report 10.9).

Even if the demand for polyester fibers were to increase to 60,000 tons/year, the scale of the demand is still very small compared with the demand in the polyester producing countries in the world. It can easily be understood that the production of polyester fiber will not and should not be carried out in countries with such small demand.

8.3.10 Priority Setting for the Proposed Projects

While all of the proposed projects need to be implemented urgently, they can be classified into several categories according to their characteristics and requirements, as follows:

(1) Projects which are characterized as expansion of existing projects

The following projects should be led by the private sector under the government's assistance.

1) Exports of clothing using Syrian cotton (8.3.1)

To further promote the project, the premier requirement is that state companies ensure abundant supply of high quality cotton yarns to private companies, instead of exports which are currently given of priority.

2) Exports of clothing using imported fabrics and accessories (8.3.3)

Foreign investment is the prerequisite to promotion of the project. Constraints related to the inducement of foreign investment are summarized in 7.1.1 (2) 6) and 7).

(2) Projects currently implemented under leadership of state-owned companies

- Projects producing large count, thick clothing fabrics by using locally available, low-quality cotton yarns

The following three projects are proposed, of which projects (1) and (3) can be implemented immediately as they do not require new investment when production is relatively small:

- 1) Exports of working clothes by using low-quality spun yarns which are produced at state-owned companies
- 2) Production of denim fabrics for jeans by using low-quality spun yarns which are produced at state-owned companies
- 3) Production of home textile products by using low-quality spun yarns which are produced at state-owned companies

(3) Projects requiring new facilities and equipment

Two projects which require new facilities and equipment are proposed; "construction of a cotton textile laboratory - introduction of HVI (high volume instrument) (8.3.5)"; and "construction of an integrated manufacturing plant for polyester/cotton blended products (spinning, weaving, dyeing, and finishing) (8.3.4). Construction of the HVI laboratory should be given of priority as it requires a relatively small amount of investment and plays a crucial role in examination of cotton quality.

(4) Recommendation to be urgently addressed

"Maintaining stable production at new, large-scale spinning mills" (8.3.6)

(5) Projects recommended for implementation, which have smaller impacts on the textile industry

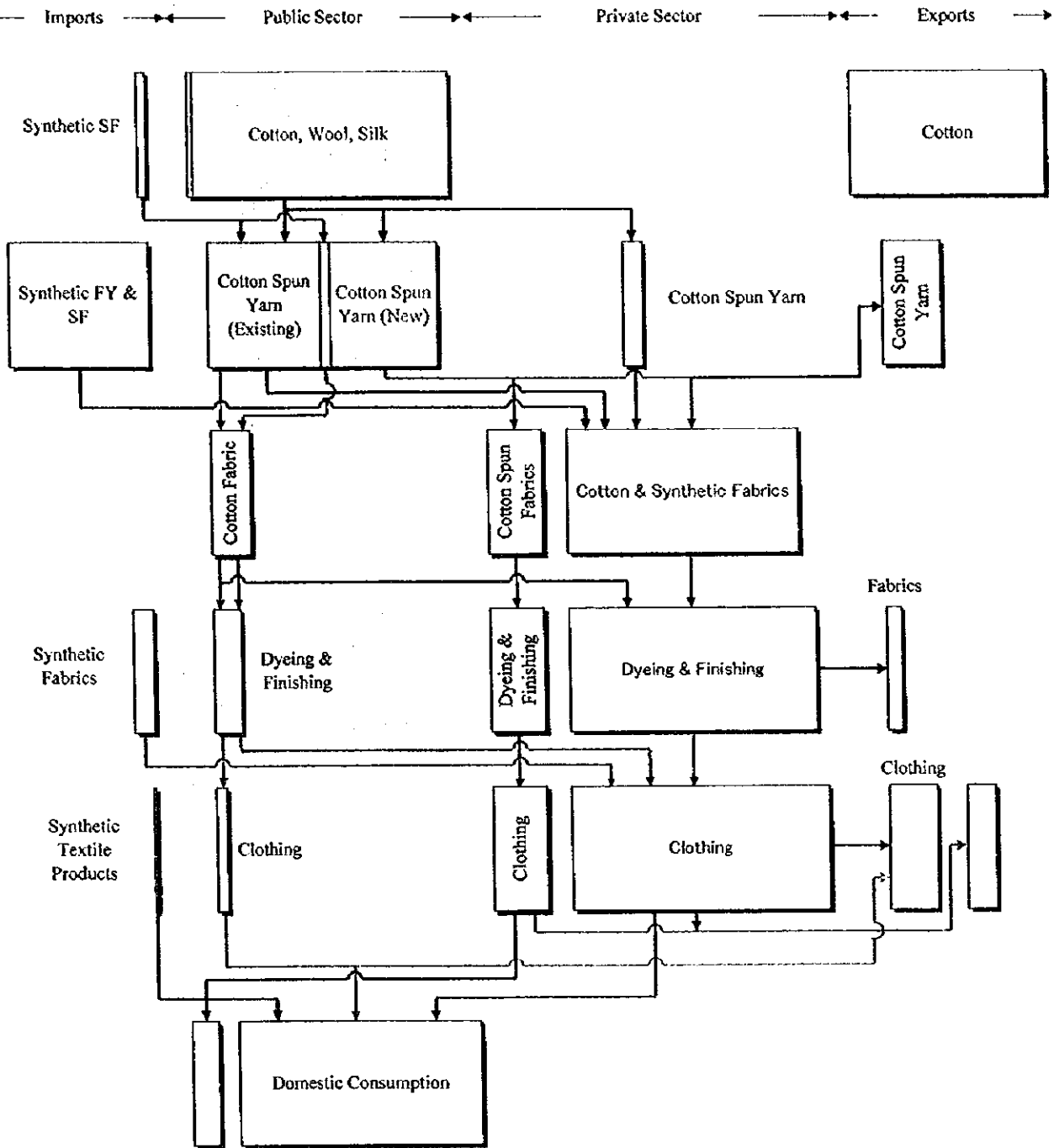
"Wool Future Vision" (8.3.7)

"Silk Mini-plan" (8.3.8)

**Table S8.3-1 RELATION BETWEEN THE DEVELOPMENT STRATEGY AND
NEW PROJECT AT COMPANY LEVEL**

7.1.2 Development Strategy	8.3 New Project at Company Level
<p>7.1.2.1 Export of cotton products, particularly clothing (using locally produced cotton)</p>	<p>8.3.1 Export of Clothing Made from Domestic Cotton</p> <p>8.3.5 Construction of Cotton Inspection Laboratories- introduction of HVI (High Volume Instrument)</p>
<p>7.1.2.2 Exports of clothing (using imported fabrics and sub-materials)</p>	<p>8.3.3 Export of Clothing Using Imported Fabrics and Accessories</p>
<p>7.1.2.3 Efficient use of existing textile processing facilities</p>	<p>8.3.2 Projects to Produce Coarse Count Yarns and Heavy/ Thick fabrics by Utilizing Low Quality Syrian Cotton Spun Yarn.</p> <p>(1) Workers uniforms for export based on low quality spun yarn produced in existing textile companies</p> <p>(2) Production of denim fabrics for jeans based on low quality spun yarn produced in existing state-owned textile companies</p> <p>(3) Production of household textiles based on low quality spun yarn produced in existing state-owned textile companies</p>
<p>7.1.2.4 Import substitution</p>	<p>8.3.4 Construction of an Integrated Factory of Polyester/ Cotton Blended Spinning, Weaving, and Dyeing and Finishing</p>
<p>7.1.2.5 Utilization of domestic wool and silk</p>	<p>8.3.7 Wool "Future Vision"</p> <p>8.3.8 Silk "Mini-Plan"</p>

Figure S8.3-1 SUMMARY OF THE NEW PROJECTS AT COMPANY LEVEL



Projects

- 8.3.1 Export of Clothing made from Domestic Cotton
- 8.3.2 Utilization of Low Quality Cotton Spun Yarn
 - (1) Workers Uniforms
 - (2) Jeans
 - (3) Household Textile
- 8.3.3 Export of Clothing Using Imported Fabrics

- 8.3.4 Polyester/Cotton Blended Fabrics
- 8.3.5 Construction of HVI Laboratories
- 8.3.6 Maintaining Large-scale Spinning Factories
- 8.3.7 Wool : Future Vision
- 8.3.8 Silk : Mini-Plan

8.4 Suggestions for Improving Supporting Services

Syrian institutes rendering supporting services to the textile industry, the services available, and the services lacking are shown in the Table S8.2-1. The Team chose several projects and discussed with the Syrian authorities. As a result, following suggestions and projects, categorized in two; Human Resources Development, and Quality Control/Productivity Improvement, are selected:

8.4.1 Human Resources Development

(1) Installation of equipment in Damascus Intermediate Institute

The Intermediate Institute of Textile Industry in Damascus is very well managed, and any additional equipment could best be utilized.

(2) Establishment of textile related faculty in Homs University

As there is no textile engineering faculty in Syrian universities, the plan to establish a textile engineering department in Homs University is an urgent matter.

8.4.2 Quality Control/Productivity Improvement

(1) Installation of testing equipment of textile products in FTC/ITRC

Test equipment for export quality certification should be reinforced at FTC, ITRC and/or GOTI laboratory.

(2) Centralized organization for publicity and guidance of quality control practice

The Team proposes that an organization be set up for centralized publicity of the importance of quality control and guidance/training of quality control measures and ISO9000 practice.

(3) Packaging Development Center

Packaging is the basic infrastructure of the industry and consumer welfare. A center for the development of packaging technology and its insemination is recommended.

(4) Reinforcement of equipment and staff of SASMO

For industrial development, standardization is one of the prerequisites. It is recommended to improve and reinforce equipment and human resources at SASMO.

(5) GOTI Laboratory

Equipment to be renewed, and new functions, such as comparative quality test of products of GOTI companies, to be assigned.

(6) Textile and Clothing Development Centers

The project is to be encouraged and supported. The Centers are expected to assist public and private textile companies mainly in technical and design fields.

8.4.3 Urgency and Priority

The projects and actions listed above are all important, and all have to be eventually realized, however, the priority list in consideration of the status of the Syrian textile industry was made as follows: A stands for the highest priority projects and actions, B for the next priority, C for those with less urgency and priority within the scope of the present study.

8.4.3.1 Export promotion measures

- | | |
|-------------------------------------|---|
| (1) Tax exemption for export income | A |
| (2) Export finance | A |
| (3) Provision of market data | B |
| (4) Textile Exporters' Association | A |
| (5) Export Processing Zones | B |

The Export markets are most important for the future development of the Syrian textile industry. As there are currently no effective measures or incentives to encourage exporters/exports, tax exemptions on export income and the introduction of an export finance system are the most urgent and basic measures now required in Syria. The Textile Exporters' Association could assist companies to develop exports.

8.4.3.2 Human resources development

- (1) Installation of equipment in Damascus Intermediate Institute A
- (2) Establishment of textile related faculty in Homs University A

Human resource development naturally requires a long initial period including the period for education. If the project starts immediately, at the earliest it could take 6 years (2003) before the first graduates are available to industry, considering construction and education periods. The Damascus Intermediate Institute urgently requires reinforcement of its equipment. In the long term and considering the importance and needs for the university graduates, Homs university's project for the textile engineering faculty should also be given top priority.

8.4.3.3 Quality control/productivity improvement

- (1) Installation of testing equipment for textile products in FTC/ITRC A
- (2) Centralized organization for publicity and guidance of quality control practice B
- (3) Packaging Development Center C
- (4) Reinforcement of equipment and staff of SASMO C
- (5) GOTI Laboratory B
- (6) Textile and Clothing Development Center A

Following human resource development, quality control and productivity improvements are high in importance. It is not easy to prioritize to each project, and consideration is only given in regard to the requirements of the textile industry. Plans to render services covering both state-owned and private textile companies, and the reinforcement of equipment at FTC/ITRC (and/or GOTI Laboratory), which are urgently required for the quality control of exports, are considered priority projects.

8.5 Sources of Funds for Projects

When a company or a governmental organization promotes a project, it will look for a funding source to cover the investment cost of the project. Normally, if it does not have enough cash in hand, it will rely on loans from domestic banks or funds raised in the securities market. In Syria, neither the banking system nor the securities market are ready to respond to the financial requirements of projects.

Government budgets could be the most important sources if the projects are in line with their priority policies, and if the funds are available for budget allocation.

The next and the most probable source of funds for the projects are foreign countries. International organizations such as UNDP, EU etc., or banks for assisting developments such as the IMF, the World Bank, the Islamic Bank etc. have various schemes. Individual governments of developed countries are also supplying funds through Official Development Assistance (ODA). Some smaller-size projects in categories like emergency needs, basic human needs and others are usually funded by grants/gifts. Other projects are covered by loan arrangements, usually with more attractive conditions such as lower interest rates, longer repayment periods, longer grace periods etc. Some of the Arab countries and regional organizations are likewise supplying funds for projects. In Syria, there is a directorate in charge of receiving assistance from other governments and organizations within the State Planning Commission (SPC), and the directorate has expertise in handling these matters.

In the case of the Japanese ODA, JICA is in charge of technical assistance and grants, and the OECF is in charge of loans, usually called yen-credits. The OECF has a system called the two step loan, whereby government to government loans are distributed into smaller size second-step loans by the local banks to small/medium sized enterprises and/or projects.

For commercial or industrial projects, the funds are usually covered by the export credit schemes of the countries supplying equipment/technology, and the banking system of the country of the project for local currency needs. It should be noted that due to the past problems of overdue repayments of international loans to Syria, the lender nations are not applying credit insurance so that the export credit/loan

arrangements to Syria are difficult, improvements in loan repayments are required to pave the way for further international inflows of funds.

8.6 Projects Recommended to be Implemented Under Foreign Assistance

(1) Preparation of the implementation plan for promotion of clothing exports

To ensure the future development of the Syrian textile industry, promotion of clothing exports is essential. In particular, preparation of implementation plans for two projects is required: "exports of clothing using Syrian cotton (8.3.1)" and "exports of clothing using imported fabrics and accessories (8.3.3)."

To ensure the successful promotion of clothing exports, a detailed implementation plan must be prepared.

Syria has great potential for developing clothing exports in terms of its labor cost, markets, and cotton production. Actually, some private companies are already successful in this business. Population and unemployment increases will be major problems for Syria in the future.

The Syrian government is unaware of the activities of private textile companies and the obstacles facing them with regard to the increase in clothing exports.

A detailed survey of the activities of Syrian private textile and clothing companies must be undertaken to clarify the present situation and problems, and effective measures to be undertaken by Syrian government must be summarized. A survey of Syria's competitors also must be carried out.

(2) To invite dyeing and finishing experts

The study team visited many factories and found the shortage of competent dyeing and finishing experts. Dyeing and finishing experts require pre-requisite knowledge of chemistry, they cannot be fully trained through field training alone, unlike technicians in the spinning, weaving, and knitting processes.

Dyeing and finishing techniques are directly related to the quality of clothing, therefore, improvement in the techniques is a critical factor for the country to increase clothing exports as planned. Thus, on-site visit to dyeing and finishing companies by foreign experts invited for training of the techniques need to be given highest priority.

(3) Recommendations related to the reinforcement of support functions

- (a) Upgrading and addition of equipment at Damascus Intermediate Institute
- (b) The establishment of Textile Engineering Faculty in Homs University
- (c) Upgrading and addition of equipment at FTC/ITRC (Foreign Trade Center/Industrial Testing & Research Center)
- (d) Support by UNDP Textile and Clothing Development Center

(4) Silk "Mini-plan"

In 8.3.8, a fostering plan for the silk industry is proposed. Naturally, a detailed implementation plan will be required to put the plan into practice.

8.7 Productivity Improvement¹⁾

8.7.1 Objective of Productivity Improvement

This section discusses the major issues relating to improvements in productivity among state-owned textile companies (in the area of cotton textile products) and makes recommendations on actions to be taken for that purpose. Private companies are not included because the study has primarily focused on state-owned textile companies in most aspects.

The primary purpose of targeting productivity improvements is to strengthen the competitiveness of a company's products in the marketplace, thereby allowing the company to conduct its business continuously, while making a meaningful contribution to society.

In terms of competitiveness, state-owned textile companies in Syria concentrate in the upstream sub-sector (cotton spinning) and virtually monopolize this market with little competition. In addition, their market is mostly limited to Syria itself and since imports of cotton products are banned, they are protected from international competition.

¹⁾ Chitoku Kumagai (1994). "SEISAN KEIEI RON" (Production Management Theory) Tokyo, Japan: The Society for the Promotion of the University of the Air.

As one of the primary purposes of the-owned companies is to create and maintain employment, the economic success of the business is not necessarily a major objective of their operation.

These basic problems are pointed out in Chapters 3 (3.2, 3.3, 3.5, 3.6), 4 (4.3, 4.9, 4.10, 4.11), and 12 (12.1, 12.2), while the proposals for overcoming them are presented in Chapters 8 (8.1(4), 8.1(5)) and 9 (9.4, 9.5). Undoubtedly, numerous regulatory constraints on the state-owned companies, as discussed in these chapters, are impeding productivity improvements.

The following sections identify, and account for, major obstacles to improving productivity and, particularly, how regulatory restrictions prevent progress.

8.7.2 Q-D-C (Quality, Delivery, Cost)

First of all, productivity should be viewed from three aspects: 1) quality of the product supplied to the customer; 2) delivery (timeliness); and 3) cost. These are collectively referred to as "Q-D-C" for short. In fact, the Q-D-C represents the overall value of the product to the customer who has purchased it. Manufacturers are required to satisfy the Q-D-C requirements in an optimum balance. In particular, delivery involves the concept of timeliness, which simply means providing the product to the customer when needed by the customer. This is a critical factor because, even if the manufacturer makes a product of high quality at low cost, the failure to supply it to the customer on time nullifies the value.

For manufacturers, the principal control elements required to meet the Q-D-C requirements are raw materials, equipment, and labor.

With the above requirements in mind, the following section reviews the problems that state-owned textile companies (primarily spinning) are facing.

8.7.3 Major Issues Relating to the Productivity of State-Owned Textile Companies and Improvement Proposals

A major difficulty facing state-owned companies as a whole is how they may effectively consolidate and co-ordinate product lines that are offered by them. Furthermore, spinning mills are located in various areas for the purpose of securing

employment, and some of them are located in rural areas not favorable for adequate labor supply.

In addition, investment decisions need to be made in consideration to the overall distribution of state-owned factories, e.g., if a factory with spinning, weaving and dyeing lines feels the need to replace an old spinning line, consideration should be given to the need for the reallocation of such production facilities and capacities among the state-owned companies as a whole.

It is important to reappraise the current location of state-owned companies as well as the allocation of production facilities and processes.

Major quality issues facing individual companies, particularly related to Q-D-C aspects, and proposals for improvement are now presented in the following sections.

8.7.3.1 Quality

Quality is governed by raw materials, equipment, and labor, which are supported by technology. Cotton is a raw material used by state-owned textile companies. As imports of cotton are banned, state-owned companies vie for high grade cotton produced in Syria. Nevertheless, supply capacity is limited and state-owned companies cannot always obtain cotton of the desired quality.

Production equipment in the state-owned textile companies is mostly old and clearly constitutes a major obstacle to efficient production yet, the lack of effort to ensure adequate maintenance is chronic and must be pointed.

As for labor, state-owned companies are mandated to create and maintain employment as its major mission, so that they inevitably hire and keep an excessive number of employees regardless of need or quality. They are not allowed to transfer or dismiss employees once hired.

Efforts to improve technology levels are hindered by regulatory constraints on raw materials, equipment, and labor. In particular, state-owned companies are not free to choose their own sources of raw materials. They also cannot obtain the necessary parts and components for equipment maintenance. Finally, they suffer

from a shortage of qualified engineers and technicians who are attracted to, and recruited by, private companies.

State-owned companies claim that, under these circumstances, they are unable to make products of high quality.

In Syria, spun yarns are almost exclusively produced by state-owned companies and, as imports are banned, competition for quality is limited to the supply side, i.e., among state-owned companies. From the demand side, private companies are virtually excluded from purchasing high quality spun yarns as state-owned companies primarily export them (including combed cotton). Instead, they are forced to purchase spun yarns as supplied by GOTI. As a result, they cannot choose their suppliers in most cases, and supply is not stable.

Thus, the lack of competition ironically warrants sales of spun yarns produced by state-owned companies, regardless of quality. For state-owned companies, competition only exists among themselves in the domestic market, rather than competing to win customers. As a result, there is little incentive for manufacturers to improve product quality. The result of a quality analysis of state-owned companies' products is summarized in Main Report 4.9, and major problems in the area of quality control in Main Report 12.1.

The first step to promote quality improvement by state-owned companies with a view to developing international competitiveness in the future should be taken by having production personnel (not sales persons) visit customers to try to understand their problems relating to the quality of products they have produced (practice learning about the quality control axiom "the subsequent production step is your customer"). At the same time, various regulatory measures are required to encourage state-owned companies to take quality control initiatives, such as requiring them to export a portion of their production, no matter how small it is, or setting quality targets for each company according to its resource conditions (raw materials, equipment, labor). In addition, these quality control initiatives should start from a designated organization, rather than launching them on a company-wide basis involving all the factory workers.

8.7.3.2 Delivery (Timeliness)

In delivery, time is of the essence. Timely delivery is referred to as the supply of the product when the customer needs it. In fact, timely delivery holds the key to proper inventory control of raw materials, intermediate products, and final products which have now built up at state-owned textile companies. Accumulated inventories indicate that products have been produced without consideration to the timeliness of delivery to the customer (who is the subsequent production step). The build up of intermediate and final products are tell-tale signs of a production practice that focuses on the convenience of the manufacturer, not of the customer.

In fact, the excess inventory buildup reflects fundamental problems of production monopoly by state-owned textile companies including the institutional ones. These problems are analyzed in 3.4, and improvement proposals are presented in 8.1(2), and Main Report 9.2, and 12.1.

The actions for improvement should start by making factory management aware of the major evil of excess inventory. Also, timeliness of delivery should be learned by employees by requiring state-owned textile companies to export some of their products, which will serve as a good opportunity to force them to realize the importance of timely delivery in the international marketplace and the competition it presents.

8.7.3.3 Cost

High production costs of state-owned textile companies are generally attributed to costly raw materials, obsolete production equipment with poor quality, and excess numbers of poorly skilled workers.

The issues related to high costs of raw materials are discussed in Main Report 4.2.1.4. While old equipment is certainly responsible for the high production costs, the lack of proper equipment maintenance also makes some contribution.

The labor surplus certainly has an additional cost impact. Major factors for increased production costs are low levels of labor productivity as well as low equipment productivity.

So far as state-owned textile companies are required to create employment, they have to keep an excessive number of workers, which causes productivity per employee to decline. However, it is important to recognize that a manufacturer's competitive strength is determined by the productivity per worker directly engaged in production activity, rather than productivity per employee.

Japanese manufacturers, during recession, have been dividing factory workers into two categories; workers required for production and surplus workers. Then, they have been minimizing the number of workers engaged in production activity in an attempt to maximize productivity per production worker. Excess workers have been assigned to activities not directly related to productivity improvement, such as painting, cleaning of factory buildings, and gardening. Thus, Japanese manufacturers have been successfully attempting to raise labor productivity under recession, which is clearly reflected in their international competitiveness.

Indeed, Japanese manufacturers have been applying similar practices to production equipment. For instance, instead of operating 100 machines at 50%, they scrapped 20-30 machines producing poor quality and reused some parts and components on the rest of machines to raise the capacity utilization rate, thereby improving the operating rate and productivity per machine.

What can be done in Syria now is to divide factory management indices into those which can be controlled by the factory, and those which are governed by external factors, and are, therefore, outside of the factory's control. In this way, the factory can be managed to achieve target levels set for the former managerial indices. This means, continuous efforts are being made to improve the manufacturer's competitiveness.

8.7.4 Case Study in Hama Cotton Yarn Company

The company is renowned for its excellence in meeting the Q-D-C requirement among state-owned companies. It exports its products and boasts the highest profitability within GOTI even though its production equipment is not very new, mostly made in the 1970s. Also state-owned companies are fettered by many regulations that constitute a major obstacle to their productivity improvement so why is this company so successful? The answer is found in the company's management. Some believe that the company is favorably located in Hama without

the major presence of the industries. If it is true, other companies operating in Hama must also report good performance. This is not the case.

The company is certainly managed by excellent people, most particularly in the person of the Managing Director. The Managing Director is renowned in Syria, for his leadership and drive. He works longer hours than all of his managers, and his enthusiasm, organizational and personnel skills carry his managers, supervisors and workers along - as they say themselves, like private sector workers whilst being paid public sector wages.

Whilst it is one of state-owned companies which operation and management are strictly regulated, it has obviously overcome the situation by taking many years. Clearly, Ham Cotton presents a model case for all other state enterprises to follow in every respect, including how to meet the Q-D-C requirements and control raw materials, equipment and labor that are basic elements of meeting the goal.

8.7.5 Competition with Imported Synthetic Fibers

As explained earlier, state-owned textile companies are almost exclusively controlling cotton spinning operations in Syria, while being free from international competition due to the import ban on cotton products. Nevertheless, competition with imported synthetic fibers exists. Failure of state-owned textile companies to achieve high Q-D-C levels has resulted in wide use of imported synthetic fibers in the country, as reflected in a very high rate of synthetic fiber consumption (see 6.3.6). This trend is likely to further accelerate as the Syrian economy grows.

If state-owned companies fail to make conscious efforts to improve productivity, the domestic market will soon be flooded with imported synthetic fibers, eventually forcing the country to export raw cotton without processing it which will create important added value. To avoid such consequences, it is important to remove the obstacles to the development of state-owned companies through major deregulation, while learning from the successful case of Hama Cotton and its excellent management as an example, or model, to follow.



9. Factory Diagnosis

The details of the diagnostic study result of the textile companies are summarized in Chapter 4 and 12 of the Main Report and in ANNEX-1 and 4. The problems and countermeasures to be taken for 11 companies and improvement plans practicable at hand are also summarized in Table S9-1 and Table S9-2.

There are many suggestions to the factories, as a result of the factory diagnosis. Of the many suggestions, the Team highly recommends to Syria is to request assistance to the developed countries for the dispatch of dyeing and finishing expert.

By visiting many textile companies in Syria, shortage of a dyeing and finishing engineer is highly impressed. The dyeing and finishing engineer is required of the basic knowledge about chemistry, on-the-job-training is not enough for fostering the engineer: this is the difference between dyeing and finishing engineer and spinning, weaving, knitting and clothing engineers. Further, to increase export of clothing from Syrian, improvement in dyeing and finishing technology, which is directly affect the quality of the clothing, is very important.

Table S9-1 PROBLEMS AND COUNTERMEASURES FOR EACH COMPANY

	Name of company	Problems	Countermeasures
A	Al Shark Underwear's General Company	Unevenness of whiteness and dyeing speck of knitted fabric.	Modernization of worn out dyeing plant.
B	General Company for Carpets	Low quality of carpet and low productivity of carpet making.	Introduction of computer controlled jacquard loom.
C	General Company for Wool	Yarn dyeing speck and not efficient operation of No.2 Mill.	Partial modernization of No.2 Mill.
D	Industrial Company for Ready-made Garment	Lack of testing laboratory. Worn out sewing machine.	Introduction of laboratory equipment and sewing machinery for uniform making.
E	Al Ahlich Company for Spinning & Weaving	No.3 OES mill of low efficiency. Streamline of dyeing process.	Renewal of No.3 OES mill. Concentration of dyeing process and introduction of equipment required.
F	Syrian Company for Spinning and Weaving	Obsolete spinning process. Outdated dyeing process.	To become processing base for northern area after modernization of dyeing process. To be specialized in weaving and dyeing.
G	Al Shahba Spinning and Weaving Company	Outdated OES spinning equipment.	Modernization of OES spinning equipment.
H	Lattakia Weaving Company	Air jet looms with structural problems. Big share of bag production in the product mix.	Total renewal of weaving process aiming at the mill to produce value added fabric for garment use.
I	United Arab Company for Industry	Obsolete spinning equipment. Dyeing process of low operation ratio.	To become processing base for southern area after modernization of dyeing equipment. To be specialized in weaving and dyeing. Better to scrap spinning.
J	Jableh Spinning Company	Low quality of combed yarn due to defective machines.	Restoration of combing line to produce value added combed yarn.
K	Draikeesh Natural Silk Company	Low quality of silk yarn.	Renewal of production and testing equipment.

Table S9-2 IMPROVEMENT PLAN PRACTICABLE AT HAND AGAINST PROBLEMS FOR ALL COMPANIES

Production management items	Improvement plan
1. Process management	<ol style="list-style-type: none"> 1. Process control using documents like processing instruction slip, process slip, work report, etc. and preparation of such documents. 2. Management of delivery time using progress control and come-up system 3. Establishment of drawing control system. 4. Implementation of "5S" activity
2. Equipment management	<ol style="list-style-type: none"> 1. Preparation and establishment of equipment maintenance standards 2. Enforcement of preventive maintenance (daily maintenance, periodical check of machinery and preventive repair) 3. Manufacturing of safety and fool-proof cover for dangerous part of machinery 4. Exalting of safety consciousness of workers through safety activities
3. Quality control	<ol style="list-style-type: none"> 1. Establishment of system using carton box for transport and storage of yarn 2. To oblige spinners attachment of yarn test report 3. Carrying out of quality improvement activities (QC committee, quality analysis meeting, ZD movement, QC circle, etc.) 4. Enforcement of inhouse standardization

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