



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

21744



XD9700186

COUNTRY SUPPORT STRATEGY

Syrian Arab Republic



**UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION**

**Arab Countries Bureau
Country Programmes and Funds Mobilization Division**

Vienna, 1996

Explanatory notes

References to dollars are to United States dollars.

The following acronyms and abbreviations have been used:

ESCWA	Economic and Social Commission for Western Asia
GDP	gross domestic product
GEs	general establishments
GOs	general organizations
ISIC	International Standard Classification of All Economic Activities
MVA	manufacturing value added
R and D	research and development
SIMs	small and medium-size industries
SOEs	State-owned enterprises
UNDP	United Nations Development Programme

The views expressed in this document are those of the author and do not necessarily reflect those of the Secretariat of the United Nations Industrial Development Organization (UNIDO). Mention of company names and commercial products does not imply the endorsement of UNIDO. This document has not been formally edited.

Contents

Introduction	<i>Page</i> 1
---------------------------	------------------

Part One: Review

Chapter

I. Industrial development, economic growth and social progress: trends and perspectives	4
A. Economic and industrial performance, trends and projections	4
B. Government strategies and policy priorities for industrial development	8
C. Institutional and organizational framework	10
D. Legal and regulatory framework: business and investment climate	11
E. The role of the public, mixed and private sectors in industry	12
F. Industrial subsectors and small and medium-size industries	13
G. Employment in industry	14
H. Industry and the environment	16
I. Industry, exports and international competitiveness	17
II. Major constraints on industrial sector development	20
A. Policy formulation and implementation	20
B. Institutional and organizational capacity building	22
C. Entrepreneurship development and industrial information services	22

Part Two: Strategic issues

III. Proposals for a country support strategy for the Syrian Arab Republic	24
A. Facing global challenges: the strategic objectives and priority programmes of the United Nations Industrial Development Organization	24
B. Government priorities for industrial development and international competitiveness	28
C. United Nations Industrial Development Organization expertise and support services: country-specific options	29
D. Coordination and cooperation with other development agencies and international donors	35

Tables

1. Gross output and MVA in the main manufacturing branches of the Syrian Arab Republic at current prices	7
2. Growth of MVA, employment and MVA per employee, 1984-1992	7
3. Employment, wages and salary and their share in MVA, 1992	15
4. Composition of external trade	18
5. External trade: main trading partners, 1994	19
6. The seven priority themes of the United Nations Industrial Development Organization	25

Introduction

The UNIDO Country Support Strategy for the Syrian Arab Republic is designed to provide the basis for formulating a medium-term cooperation programme with the Government. It takes into account government priorities for the country's long-term development, places them in the context of the global objectives, expertise and experience of UNIDO and highlights areas of potential joint development projects and programmes in areas where UNIDO has a competitive edge and is uniquely qualified to provide specialized technical assistance and support services.

To help identify areas in which UNIDO technical assistance and support services could complement, or be coordinated with, other development programmes, including access to sources of aid funds and financing, an attempt has been made to indicate the activities of other bilateral and multilateral development agencies and donors involved in the country.

The report is divided into three chapters that address the following issues:

- Part one, consisting of chapters I and II, covers the country's current socio-economic position and its industrial development status, including major trends, perspectives and constraints. The emphasis is on government strategies and policy priorities for industrial development. The chapters show the Government's response to national and global socio-economic, industrial and technological challenges and the implications of the ongoing transformation of the Syrian economy.
- Part two, which is identical with chapter III, outlines UNIDO global objectives and priority themes for country-specific policy formulation and programme elaboration, places them in the context of Syrian Government priorities and highlights the value of specific UNIDO support services. Chapter III, section C, describes potential areas for cooperation projects and programmes, based on the TSS-1 study.¹ Chapter III, section D, indicates which agencies are doing what in terms of development assistance and aid finance.

The report concludes that the Syrian Arab Republic is an economy in transition whose major socio-economic challenge is posed by a fast-growing, young population, a relatively low proportion of which (less than a quarter of the total) is economically active. The country's policy makers are confronted with the implications of rapid change at both the national and international levels:

- The gradual restructuring of the domestic economy away from central planning and import substitution industrialization towards a more market-oriented system with an emphasis on private sector development and export promotion. This requires a different government approach to strategic planning, policy formulation and implementation.
- The reform of State-owned enterprises (which falls short of privatization, however) and the need for the authorities to provide an enabling environment for the successful operation of the main economic agents, that is, the public, mixed and private sectors. This reform process implies massive requirements for comprehensive and continued training and re-education at the policy, institutional and enterprise levels (professional, managerial, technical and vocational) in the form of awareness and information campaigns, seminars and workshops. To be successful, economic

liberalization also requires developing human resource management and entrepreneurial initiative and know-how.

- At the international level, the Syrian Arab Republic is affected by the implications of globalization, integration and increasing interdependence, international trade and investment, technological advances, including new products and materials, international communications and information systems and compliance with international trade, financial and environmental agreements such as the Uruguay Round agreements and the Montreal Protocol on Substances that Deplete the Ozone Layer.
- To achieve the Government's objective of improving the efficiency and international competitiveness of the public, mixed and private sectors, particularly in the manufacturing industries, support systems and services need to be provided. These include, besides the above-mentioned training requirements and the provision of an enabling environment, industrial information services (for example, information on the macroeconomic situation, export markets, industrial enterprise linkages and alliances, licensing and franchising, product quality control and standards/ISO 9000 certification), industrial consultancy services (for example, on market research, feasibility studies, product design, procurement services, maintenance, after-sales service, quality control, marketing and distribution) and assistance in technology absorption and adaptation, locally based R and D, product quality control and certification (ISO 9000), energy conservation and environmental protection and sustainable industrial development.
- Government efforts are directed at building capabilities in industrial support institutions and services (including chambers of commerce and industry, business associations, the Investment Bureau and ministerial departments). A joint programme with the United Nations Development Programme (UNDP) is under way to improve and enhance the coverage of national socio-economic, financial and industrial statistics collection and analysis. There are various programmes for the computerization of industrial support institutions and services.
- The Government's long-term strategy has given priority to the development of the industrial and manufacturing sector, together with agriculture and tourism: official policy emphasizes the development of the country's five main industrial subsectors (chapter I, section F), rural industrialization and agro-industries (foodstuffs, textiles) and on small and medium-size industries (SMIs).
- The links between agriculture and industry and the plans to exploit the Syrian Arab Republic's potential for tourism have lent importance to government concern for energy conservation, protection of the environment and sustainable industrial development. The Syrian Arab Republic is a signatory to international agreements on environmental issues, including the Montreal Protocol. To assist it in complying with international agreements and in implementing energy conservation and environmental protection measures, such as water resource management, the country is receiving development assistance from the United Nations system.

Chapter III, section C, lists the areas where UNIDO and the Government of the Syrian Arab Republic might consider technical cooperation. It describes the support services that could be provided to the country at the policy, institutional and enterprise levels. The focus is on capability building through training; the implementation of economic reform policies (State-owned enterprises (SOEs), SMIs, export promotion, creating an enabling environment etc.); compliance with international agreements and standards (such as the Uruguay Round agreements, ISO 9000 certification, energy conservation and environmental protection); and technology absorption and adaptation to local needs. UNIDO technical assistance targets the five main industrial subsectors.

Major donors and sources of financing to be considered for future UNIDO projects in the Syrian Arab Republic, particularly in view of the growing role of the private sector in the economy, are the European Union and the various development agencies and financial institutions of the Persian Gulf area.

The European Union is involved in the modernization and computerization of the Commercial Bank of Syria and the Central Bank of Syria. It is also partly financing the rehabilitation of the country's power transmission systems. Arab funds such as the Kuwait Fund for Arab Economic Development, the Arab Fund for Economic and Social Development, the Saudi Fund for Development and the Islamic Development Bank are mainly financing large infrastructural and industrial projects in, for example, power generation, telecommunications, steel and fertilizers. They are the largest single source of concessionary and grant finance in the Syrian Arab Republic. Other large sovereign donors have been Japan (power stations), China (power/high dams) and Germany (infrastructure).

The bulk of external assistance is now directed at investment projects and free-standing technical cooperation. According to UNDP,² most of external assistance recorded in 1993 was official development assistance, 63 per cent of which came from bilateral sources. The energy sector received 45 per cent, or \$112 million. Humanitarian aid and relief received \$20 million, mostly from the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), and agriculture received \$13 million. An energy project was allocated \$30 million, but the amount was carried over to 1994 because of delays in project implementation.

PART ONE: REVIEW

I. Industrial development, economic growth and social progress: trends and perspectives

A. Economic and industrial performance, trends and projections

1. Socio-economic environment

An economy in transition, the Syrian Arab Republic has moved since the late 1980s from a socialist, centrally planned economy towards a more market-oriented system in which the private sector is being given a growing role. However, unlike other countries in the region, privatization has so far been excluded from government policies, which remain focused on the development of the three sectors—public, mixed and private—to generate economic growth, provide employment and sustain social development.

According to the World Bank classification, the Syrian Arab Republic is a lower middle-income country. Its population, currently estimated at some 14 million, is growing at around 3.3 per cent per year, one of the fastest rates in the world. More than 60 per cent of the population is under 25 years old and 42 per cent is under 15. If the current population growth rate is maintained, the population will reach 32 million by the year 2025.² With the national labour force put at 3.3 million in 1992, the economically active population accounts for less than a quarter of the total. Urbanization remains high, at an estimated 51 per cent in 1991, although annual population growth in the cities apparently slowed to a rate of 4.5 per cent in 1980-1988. Government efforts are directed at stemming migration to the cities by developing rural development programmes such as the provision of electricity to villages. Unemployment and underemployment are high (no official figures are available). More than 150,000 jobs need to be created each year for new entrants on the labour market. Increasingly, the private sector is to contribute to job creation and the provision of training facilities

2. Economic growth

The Syrian economy registered strong growth rates in the first three years of the 1990s. Real gross domestic product (GDP) rose on average by more than 7 per cent annually between 1990 and 1992, largely on the back of increasing oil production and oil export revenues, record agricultural output, economic liberalization (which stimulated investment and private sector industrial activity) and, in the wake of the Persian Gulf war, an upswing in the tourism industry, which is becoming one of the most promising sources of foreign exchange for the Syrian economy. However, since 1993, growth rates have slowed. This was largely due to a deceleration in oil production, which combined with the decline in oil prices to reduce export earnings. In addition, despite continued record harvests, relative growth rates in agricultural output declined. Meanwhile, fiscal restraint and a severe liquidity squeeze in the economy, which affected the private sector particularly, have had an adverse impact on investment and domestic consumption.

3. External accounts and financial position

In terms of external trade, the Syrian Arab Republic can be considered an open economy, since its combined imports and exports (at current prices) accounted for around 60 per cent of GDP in the

early 1990s. An export promotion policy is now replacing the import substitution industrialization strategy that prevailed in the 1970s and was continued half-heartedly throughout the 1980s. Hence the challenges of globalization and interdependence, together with trade and investment liberalization at the national and international levels, are of increasing significance to the Syrian economy and the country's policy makers.

The external trade balance, which had regularly been marked by large merchandise trade deficits, recorded large surpluses in 1990 and 1991, exceeding \$2 billion and \$1 billion, respectively. However, the trade surplus shrank in 1992 and after that once again turned into substantial deficits, amounting to several hundred million dollars. The main reasons for this were a decline in oil export receipts, a collapse of private sector exports to the markets of the former Soviet Union and a surge in private and public sector imports. The last was the result of import liberalization and increased demand for capital goods in response to private and public sector investment activity.

After severe financial crises and foreign exchange shortages in the 1980s, which had a disastrous effect on the Syrian Arab Republic's diversified industrial and manufacturing sector, the large current account surpluses recorded in 1989-1991 helped to replenish depleted foreign exchange holdings. However, this trend has since been reversed as a result of the widening trade deficit. The deficit on both the visibles and invisibles accounts is only partly being offset by the continuous rise in remittances from Syrians working abroad (particularly in Persian Gulf countries), mainly in response to ongoing market deregulation, exchange rate reforms and an improved investment climate at home. Between 1990 and 1994, private transfers more than doubled, from \$385 million to more than \$900 million, according to provisional figures by the Central Bank of Syria. Meanwhile, official transfers (grants and aid funds from donor governments and development agencies) in the 1990-1994 period fluctuated between a low of \$41 million in 1993 and a high of \$313 million in the preceding year. This contrasts starkly with the aid money the Syrian Arab Republic received during 1979-1988 as a frontline State under the Baghdad Pact. It is estimated that Arab financial aid under this agreement totalled some \$10 billion.

According to the latest figures of the Central Bank, during the 1990-1994 period, net short- and long-term capital flows into the Syrian Arab Republic showed a positive balance since 1991, which produced a surplus of several hundred million dollars on the overall balance of payments. The World Bank puts the country's overall external debt at more than \$21 billion. However, more than \$14 billion of this is owed to the former Soviet Union and eastern European states, and debt servicing of these liabilities is either suspended or under negotiation.

4. Industrial development and diversification

The contribution of the Syrian Arab Republic's industrial sector to GDP was 28.1 per cent in 1993 (at current prices). The economy is dominated by the services sector, which accounts for more than 50 per cent of total national income, while the share of agriculture fluctuates between 20 and 30 per cent. Syrian national accounts include mining, manufacturing, electricity and water under the industrial sector category. UNIDO statistics, which specify manufacturing in addition to total industrial activity, show clearly that in the distribution of GDP (at constant 1980 prices) the share of total industrial activity rose from 21 per cent in 1970 to over 33 per cent in 1993 but declined to less than 20 per cent in 1978-1986 (this trend largely reflects the development of the country's hydrocarbons industry). In contrast, the contribution of manufacturing to GDP fell from an already low 5 per cent to less than 3 per cent in 1993. This is the lowest level reached in the last two decades, except for 1984 and 1986.³ In terms of sectoral growth rates, total industrial activity and manufacturing value added (MVA) compared favourably with that of other developing countries; however, while total industrial activity, including MVA, recorded a decline to 5.4 per cent in average annual growth rates

in the 1990s, from a record 10 per cent in the 1980s and nearly 8 per cent in the 1970s, the manufacturing industries alone gathered momentum in the 1990s, with an annual average rise in MVA of 5.4 per cent against 3.5 per cent in the 1980s and 5.7 per cent in the 1970s.³

In view of the Syrian Arab Republic's fast population increase, the growth in MVA per capita is much less impressive and closer to the levels in developing countries and developed market economies. MVA per capita grew at an average of 2.3 per cent per year in the 1970s, declined by less than 1 per cent in the 1980s and rose again by 1.9 per cent in 1990-1993. Nearly 15 per cent of the labour force is employed in industry and another 11 per cent in construction.

Agriculture was the main driving force behind the country's early industrialization. The economic base of the Syrian Arab Republic is a large agricultural sector and substantial oil and natural gas reserves and phosphate deposits. Syrian industrial development gained momentum in the 1950s and 1960s with the establishment of factories producing a small range of light consumer goods such as textiles (based on local cotton production), processed foodstuffs, leather, paper, soap, matches, glass and cement. The first efforts to promote a more diversified industrial base took place during the commodity price boom in the 1970s. The Third Five-Year Plan (1971-1975) emphasized resource-based industrial development, channelling nearly 40 per cent of public investment into large-scale industrial projects, most of them heavy industries: phosphate and nitrogen fertilizer plants, steel rolling mills and chemical and engineering plants.

In the last two decades there has been a shift in the structure of the country's import-substitution industries towards the replacement of durable consumer goods. This is evidenced by the increasing, albeit still very low, share of fabricated metal products, machinery and equipment in MVA (table 1, which shows the evolution of the country's main manufacturing subsectors in terms of production and MVA).

The changing composition of MVA, at constant 1980 prices, from 1980 to 1992 reflects a significant trend:³ while food products, beverages and tobacco kept their share of 28-30 per cent in total MVA, the share of textiles declined (from around 20 per cent in 1980 to 16 per cent in 1992) and the share of petroleum refineries rose (from 13 per cent to more than 23 per cent and 21 per cent in 1988 and 1992, respectively). Another noticeable trend in MVA is the contribution of chemicals (industrial and other, including pharmaceuticals), which rose from just over 6 per cent in 1980 to more than 10 per cent in 1987-1992.

The performance of the manufacturing sector over the last 10 years has been poor, particularly when compared with its performance in the preceding decade. UNIDO figures show that the share of MVA in the gross output of all industrial subsectors declined between 1975 and 1991 and was halved in the main industries (food products, beverages, tobacco; textiles, wearing apparel, except footwear; industrial and other chemicals; petroleum refineries).³ From 1984 to 1992, MVA declined in most industrial subsectors, by as much as 23 per cent (leather, footwear, paper and printing) and 36 per cent (wood products and furniture, ISIC 331 and 332), rising, however, in chemicals, petroleum products, rubber and plastic products (ISIC 351-356), but by less than 2 per cent (table 2). Employment fell in all the subsectors in response to the economic and financial crises associated with foreign exchange shortages, lack of spare parts and maintenance and underutilized capacity. MVA per employee, however, showed a varied performance closely linked to the reduction in employment, partly offsetting the negative or low growth in the sector's MVA.³ This dismal performance contrasts sharply with performance from 1975 to 1983, when MVA in all manufacturing subsectors except leather products and footwear grew substantially, in most cases by more than 10 per cent (at 1980 prices) and for chemicals, petroleum refineries, rubber and plastic products, paper, printing and publishing (ISIC 341, 342 and 351-356) by more than 23 per cent. Employment during this period rose significantly in all

sectors, reflecting increased investment activity and expansion of production capacity. During that 1975-1983 period, MVA per employee showed increases in all except four branches: leather and footwear, pottery, electrical machinery and transport equipment.

Table 1. Gross output and MVA in the main manufacturing branches of the Syrian Arab Republic at current prices (Percentage)

<i>Branch (ISIC)^a</i>	<i>Share of total gross output</i>		<i>Share of total MVA</i>		<i>Share of MVA in gross output^b</i>	
	<i>1975</i>	<i>1991</i>	<i>1975</i>	<i>1991</i>	<i>1975</i>	<i>1991</i>
Textiles (321)	37.3	20.2	35.5	21.0	38.5	20.6
Food products (311)	17.4	19.2	14.1	13.2	32.6	13.6
Petroleum refineries (353)	5.7	12.0	4.5	8.8	31.6	14.4
Other chemicals (352)	2.5	8.6	1.9	5.7	29.5	13.2
Tobacco (314)	4.8	5.3	9.9	9.1	82.0	34.0
Other non-metallic mineral products (369)	2.0	4.8	2.7	6.9	52.8	28.5
Fabricated metal products (381)	6.2	3.4	7.0	5.5	45.4	32.1
Footwear, except rubber or plastic (324)	2.4	2.8	2.9	3.8	49.6	27.0
Leather products (323)	1.5	2.8	1.2	2.6	33.1	18.1

Source: UNIDO, "A statistical review of economic and industrial performance for Syrian Arab Republic", January 1996.

^aISIC = International Standard Industrial Classification of All Economic Activities.

^bAverage share in 1975 was 40.3 per cent and in 1991, 19.8 per cent.

Table 2. Growth of MVA, employment and MVA per employee, 1984-1992 (Percentage)^a

<i>Branch (ISIC)</i>	<i>MVA</i>	<i>Employment</i>	<i>MVA per employee</i>
Textiles (321)	-4.14	-8.55	4.83
Food products (311)	-1.44	-0.66	-0.78
Petroleum refineries (353)	1.96	-4.65	6.94
Other chemicals (352)	1.96	-4.65	6.94
Tobacco (314)	-1.44	-0.66	-0.79
Other non-metallic mineral products (369)	-4.04	-6.67	2.83
Fabricated metal products (381)	0.04	-12.38	14.18
Footwear, except rubber or plastic (324)	-22.98	-8.57	-14.61
Leather products (323)	-22.98	-8.74	-14.43
Other manufactured products	-22.56	-3.03	-20.14

Source: UNIDO, "A statistical review of economic and industrial performance for Syrian Arab Republic", January 1996.

^a1980 prices.

B. Government strategies and policy priorities for industrial development

The Government of the Syrian Arab Republic is according the manufacturing sector a leading role in the country's socio-economic development. Industry, together with agriculture, export promotion and tourism, is singled out in the *National Strategic Development Framework, Horizon 2000* as one of the priority areas for both public and private investment.⁴

In view of the importance given to the development of the industrial sector and the need to prepare it for the challenges of globalization and interdependence, innovation and technology and the liberalization of trade and investment, the Government is committed to increasing the efficiency and competitiveness of SOEs. At the same time, government policy is aimed at encouraging the local private sector and attracting foreign direct investment (in particular, financial assets held by Syrian expatriates, estimated at tens of billions of dollars). Although outright privatization, that is, the divestment of State holdings, has so far not been on the Government's political agenda, economic pluralism is the Syrian formula for transforming a centrally planned economy into a system driven by the market forces of demand and supply and international competition.

Economic pluralism implies complementary roles for the public, private and mixed sectors. Mixed sectors, that is, joint ventures between public authorities and the private sector, with the former acting largely as a silent shareholder and not interfering with management, were first introduced in the late 1970s for tourism, followed in the mid-1980s by agro-business. The Government is now seeking similar arrangements with the private sector in manufacturing industries. Increasingly, it is opening up strategic areas of the economy to private sector activity, thereby exposing the public sector to market competition. Inevitably, this will lead to a paring down of loss-making and inefficient public sector enterprises. Over the last three years, the private sector has been given access to downstream operations in the hydrocarbons industry, irrigation, power generation, sugar refining and cement.⁵

New legislation passed in the 1990s (Law No. 10 of 1991 for the encouragement of investment and Law No. 20 of 1994 on the reform of SOEs) reflects Government priorities and strategies for the twenty-first century.

Among these are structural reforms with two goals:

- To enhance the efficiency, productivity and profitability of SOEs by decentralizing decision-making and increasing managerial and financial accountability and transparency.
- To encourage private sector activity by offering incentives, creating a stable macroeconomic environment, deregulating markets, and setting up a legal and regulatory framework conducive to investment and employment.

They also include policy measures having a number of aims:

- To promote export-oriented industries and export capability.
- To increase the competitiveness of the public, mixed and private sectors.
- To attract foreign direct investment.
- To provide for the transfer of technological and managerial know-how and expertise.
- To provide for the application, adaptation and innovation of technology.

- To comply with international conventions on energy and the environment.
- To generate growth and employment in the economy and thus contribute to social development and a higher standard of living.

Law No. 10 of 1991 and Law No. 20 of 1994 involve structural reform to facilitate the transition towards a more market-oriented economy. Law No. 10, for the encouragement of investment, is designed to promote productive private investment (by residents, expatriates and foreigners, in the form of joint ventures), with a view to stimulating growth, creating employment and promoting import substitution and exports, leading to the transfer of technology and managerial expertise and know-how. Law No. 20 gives SOEs greater commercial, financial and managerial autonomy and accountability. It is designed to reduce State subsidies to SOEs, reduce bureaucratic bottlenecks and political interference and make SOEs commercially viable and cost-effective.

To give the private, mixed and public sectors an enabling environment and market conditions conducive to investment, productivity and employment, the Government has, since the late 1980s, pursued a policy of gradual economic liberalization and market deregulation. This policy direction represented a shift away from past practices, which focused on centralized State planning, import substitution industrialization, resource-based heavy industries, government subsidies, a protectionist trade regime (import controls etc.), pricing and foreign exchange controls and public sector dominance.

With Law No. 20, the Government is slowly disengaging itself from the management and control of SOEs. At the same time, it is allowing the private and mixed sectors to play a more prominent role in the agriculture, industry and service sectors and even compete with public sector establishments in strategic areas such as oil refineries, irrigation and cement. The Government now sees its role as providing support institutions, a stable macroeconomic environment, physical infrastructure,* the legal and regulatory framework, a liberal trade regime that encourages export-oriented industries, a favourable tax system and financial intermediation. On the macroeconomic front, the Government has taken steps to unify the multi-tier exchange rate, reduce inflation, lift State subsidies for basic consumer goods, partially deregulate prices, contain the budget deficit and enact favourable investment legislation. The formulation and implementation of other policy structural reforms, such as the development of an efficient banking system and financial intermediaries, are facing difficulties (see chapter II).

The shift in government priorities and strategic policy objectives may have been prompted not only by external factors, that is, by the break-up of the former Soviet Union and the collapse of socialist command economies, but also by past experience, which demonstrated the non-performance or underperformance of many large public sector enterprises (one exception was the hydrocarbons industry), mainly because there was no competition or incentives, little managerial and commercial know-how and many bureaucratic bottlenecks. This is clearly illustrated by a comparison between investment targets and actual investment, particularly under the Fifth and Sixth Five-Year Development Plans (1981-1985 and 1986-1990), in which 27 per cent and 31 per cent, respectively, of planned investment had been allocated to industry and energy, with actual investment in this sector falling short of the target (it reached 24 per cent in 1981-1985 and a mere 19 per cent in 1986-1990). In addition, the public sector had been targeted to contribute 84 per cent and 82 per cent of total investment (all sectors) in the Fifth and Sixth Plans, respectively, but only succeeded in contributing 65 per cent and

*Large infrastructural projects, notably the upgrading and expansion of the telecommunications sector, power stations and the rehabilitation of sewage and sanitation systems, have been undertaken since 1991, financed largely by Gulf development funds but also by the European Union, individual European countries and Japan.

56 per cent. In contrast, in the 1980s the private sector exceeded its investment targets, indeed doubled them: actual investment during the Fifth Plan was 35 per cent of the total, compared with a 16 per cent target, and 45 per cent during the Sixth Plan, compared with an 18 per cent target.

C. Institutional and organizational framework

For more than three decades and until the end of the 1980s, the Syrian Arab Republic had a centralized, planned economy in which industrial development policies focused on heavy, i.e. resource-based, industries. However, since the 1970s, a corrective movement has allowed the private sector a limited role in light manufacturing industries. Mixed-sector joint ventures (between the State and private entrepreneurs) were first introduced towards the end of the 1970s for tourism, followed in 1986 by similar legislation for agro-industries and in 1991 by Law No. 10 for the encouragement of private investment.

1. Policy formulation and decision-making

The Supreme Planning Council, headed by the Prime Minister, formulates economic and social objectives, decides which institution is to carry out policy directives and allocates resources. It supervises the implementation of development plans and projects and evaluates their results. The Council's decisions are binding on all governmental agencies and public enterprises. Day-to-day decisions required to implement the plans and projects are made by the Economic Committee, an interministerial subcommittee of the Council of Ministers.⁶

2. Coordination

The State Planning Commission, headed by the Minister for State Planning Affairs, is attached to the Prime Minister's office. As the central coordination authority under the Council of Ministers, it is the coordinator of all external economic, technical, scientific and capital assistance provided to the country. This implies close coordination and cooperation between, on the one hand, the Council of Ministers and the directorates of planning of the various ministries and other recipients of external assistance and, on the other hand, the donor community.

3. Policy implementation

In the dominant public sector, State industrialization policies have been implemented through a centralized structure under the responsibility of the Minister of Industry. As shown in the TSS-1 Study for Syria,¹ general directorates are charged with specialized administrative services, while general establishments (GEs) and general organizations (GOs) are responsible for the six industrial subsectors. The last two structural layers comprise support institutions such as the Syrian Arab Standards and Metrology Organization and regional intermediate institutes such as the Institute for Textiles Industries at Aleppo.

GEs and GOs supervise SOEs in each industrial subsector: food industries (GOFI), sugar (GOS), textile industries (GOTI), chemical industries (GECI), engineering industries (GOEI) and cement and building materials (GOC).

Within this framework, annual production targets were set by the State Planning Committee for a wide range of industries, while the GEs supervised the SOEs and provided them with the necessary inputs and facilities to meet these targets. In setting their targets, the planners gave priority to the establishment of a heavy industry base, which resulted in what was essentially an import-substituting industrialization strategy.

Syria's transformation from a centrally planned economy into a more market-oriented system is encapsulated in recent legislation: Law No. 20 of 1994, which provides for greater autonomy and decentralization of public sector companies, and Law No. 10 of 1991, for private sector productive investment (see chapter I). The shift in government policy and strategy will involve, *inter alia*, a major restructuring of the industrial sector's institutional and organizational framework.

For the private sector in the manufacturing industries, the main official policy implementation and support institutions (institutional intermediaries) are the Ministry of Industry, the Ministry of Economy and Foreign Trade, the Ministerial Higher Council of Investment and the Investment Bureau (attached to the office of the Deputy Prime Minister for Economic Affairs, which is in charge of processing project applications under investment Law No. 10), the national and regional chambers of commerce and industry and the specialized State technical and research institutions, including the Syrian Arab Organization for Standardization and Metrology.

D. Legal and regulatory framework: business and investment climate

Since the late 1980s the Government's policy of gradual economic liberalization and market deregulation has been marked by a shift away from central planning, import substitution industrialization and protectionism. The main objectives of this policy are to restructure public sector enterprises, encourage private sector activity, promote exports and liberalize imports, and attract direct inward investment. The overall goal is to enhance the efficiency and international competitiveness of the main economic agents, to generate growth in the economy, provide jobs, raise the standard of living and secure social development and progress.

For this purpose, the Government has passed new legislation and changed the legal and regulatory framework to make it conducive to investment, entrepreneurship and the free play of market forces. It has taken steps to create an enabling environment. Such an environment involves, among other things, a stable macroeconomic environment, a power, transport and telecommunications infrastructure, financial intermediation and favourable investment legislation (see also chapter II).

The most notable measures taken in this policy direction over the past few years are moves towards the unification of the multi-tier exchange rate system, the exemption of productive investment projects from foreign exchange control regulations (Law No. 24 of 1986 remains in place), a partial lifting of subsidies for basic consumer goods, limited price deregulation, relaxation of the trade regime, tax reform (introduced in 1992, company taxation remains excessive, with a 60 per cent tax on corporate income), modernization and computerization of the Commercial Bank of Syria and the Central Bank, Law No. 10 of 1991 (investment) and Law No. 20 of 1994 (public sector reform).

Law No. 20 of 1994 provides for the restructuring of public sector companies to improve efficiency, productivity and profitability. The law affects, in particular, the State-dominated industrial sector and manufacturing industries. It involves decentralization and should, in principle, lead to the removal of State subsidies and political interference. It gives SOEs greater autonomy and financial and managerial responsibility and will put them on a more commercial footing, i.e. on a basis of profit and loss. The successful implementation of this legislation, which marks a radical departure from past practice, will pose a major challenge to the authorities. This is one area where UNIDO could offer its advisory services and cooperation (see chapters II and III).

Law No. 10 for productive investment was passed in May 1991. Aimed at Syrian resident, expatriate and foreign investors, it covers investment projects (by joint-stock companies, partnerships and joint ventures) in the fields of agriculture, animal husbandry, agro-business and industry (open to both the public and private sectors) and transport. It provides a wide range of incentives in the form

of tax, customs duties and other regulatory exemptions. Investment schemes under this law are exempt from the foreign exchange controls imposed under Law No. 24 of 1986. To be approved, a project must satisfy the following conditions (article IV):

- Meet the objectives of the State Development Plan.
- Use local resources to the greatest extent possible.
- Contribute to economic growth and employment generation.
- Help to increase exports and rationalize imports.
- Use the latest technology and machinery suitable for national requirements.
- Have an investment of at least LS 10 million.

To cut red tape and speed up the processing of project applications and the issuing of licences, project applications are to be dealt with within one month.

E. The role of the public, mixed and private sectors in industry

Despite the dominance of the public sector in industry, particularly in resource-based heavy industries, the Government in 1986 passed new legislation for the establishment of mixed-sector enterprises (joint ventures between the State and the private sector) in agriculture and agro-business. With investment Law No. 10 of 1991 (see chapter I, section B), the Government allowed, for the first time since the 1970s, the establishment of wholly private-owned joint stock companies in manufacturing industries and transport services.

The country's highly profitable hydrocarbons industry, whose exports are the main indigenous source of foreign exchange, operates successfully as a joint venture (consortium) with international oil companies. Marked by the absorption and adaptation of technology, it is an example of a cross-border strategic alliance with a State monopoly. The consortium is capital-intensive, and labour productivity is high. The Government will adopt a similar approach to the development (production, processing and marketing) of its abundant natural gas reserves and its ambitious long-term programme to substitute gas for oil in power generation and for industry and household consumption.

SOEs still dominate most industrial activities (agro-businesses, sugar refineries, textiles, yarn spinning, chemicals/ petrochemicals, fertilizers, phosphates, non-metallic mineral products, basic metals and cement). The private sector has been particularly active in textiles, food-processing, leather, paper, pharmaceuticals, electrical goods and machinery. Over the last two years, the Government has opened up more strategic areas of the economy to private sector participation to compete with the public sector. These include, in particular, power generation, cement production, sugar refining, irrigation and downstream operations in the hydrocarbons sector. Thus, despite the continuing dominance of the public sector in Syria's manufacturing industries, there has been an overall decline in the share of SOEs in manufacturing output, from 73 per cent of the total in 1985 to 64 per cent in 1991.

Although the index of industrial production in the public sector in 1989-1993 showed real growth in all major sectors except foodstuffs and furniture, where there were fluctuations, a longer term comparison of MVA showed a significant decline in the share of MVA in gross output between 1975 and 1991 (see chapter I, section A). Equally, the dramatic decrease of MVA per employee during that period demonstrates the dominance of labour-intensive industries with low labour productivity, a

feature of most developing countries with labour surplus economies. This contrasts with the large resource-based industries, particularly upstream operations in the petroleum sector. The 13 public textile companies are among the top performers in the country in terms of production and exports. They have undergone extensive modernization in recent years, with their competitiveness having been improved by raising productivity and diversifying output.

The response of the private sector to investment Law No. 10 of 1991 has been impressive. By early 1995, the Higher Investment Council had issued licences for 1,250 projects worth nearly LS 233 billion, the equivalent of \$5.5 billion.⁵ A breakdown of project applications shows that the largest number of applications were in the transport sector (659 schemes), followed by manufacturing (565) and agriculture (26). In terms of planned capital investment, manufacturing was the star performer, with projects worth 67 per cent of the total, while transport and agriculture had 25 per cent and 8 per cent, respectively. It is worth noting that the number of jobs expected to be created by these projects (1991-1995) was more than 90,000, which would absorb more than half of the new entrants into the labour market each year.⁵

Despite the enthusiastic response of the private sector to the Government's favourable investment legislation and policy promotion, as illustrated by the number and value of project applications, implementation is lagging far behind the good intentions, particularly in the more capital-intensive manufacturing sector. By early 1995, a mere 12 per cent of all project applications in manufacturing and agriculture were estimated to have materialized. This compares with an 83 per cent rate of implementation in the transport sector.⁵ No official data have yet become available on the foreign sources of investment capital. Joint-venture project applications have been largely limited to business partners and financiers from Saudi Arabia and the United Arab Emirates. There have been only a few licensing agreements with non-Arab foreign companies (in pharmaceuticals/chemicals and textiles, in particular). By the end of 1994, no non-Arab foreign equity investment had been reported under Law No. 10 of 1991.

The main constraints on private sector development and project implementation were considered to be bureaucratic bottlenecks, the absence of efficient financial intermediation or poor access to it (commercial and investment banking facilities and domestic and foreign credit and medium-term financing etc.) and the shortage of consultancy firms that could carry out feasibility studies, market research etc. (see chapter II).

F. Industrial subsectors and small and medium-size industries

Despite these constraints, Syria's main manufacturing subsectors have the potential for continued development, particularly at the level of private and mixed-sector SMIs.

Five subsectors constitute the bulk of the manufacturing industry in the country. The agro-food industry (ISIC 311, 313, 314) remains the most important branch. By 1992 it accounted for more than one third of MVA.³ Indeed, the Syrian Arab Republic accounts for more than one third of the overall MVA in agro-food processing activities in the region covered by the Economic and Social Commission for Western Asia (ESCWA).

Although excellent export opportunities exist in the region, Syrian processed-food exports are negligible. This is in part attributable to the low quality of the products. Prevailing government policy, which consists in exporting only when a surplus is available, leaves little room for an aggressive export-oriented production. Despite the potential for exports to neighbouring countries, particularly to markets in the Persian Gulf area, the country's food-processing industries, in particular in the private

and mixed sectors, are handicapped by a number of structural constraints, including, among other things, storage, packaging, marketing and distribution.

The textile subsector (ISIC 321, 322, 323, 324) ranks second after the agro-food industry in terms of MVA, but its export earnings capability is much more important. In fact, it is the third most important export item after crude oil and petroleum products. The Syrian textile industry is fairly well diversified: it not only spins yarns and weaves fabrics but also converts them into underwear and ready-made garments. The industry also produces carpets, socks and stockings and caters to the tastes and requirements of all strata of the population. In addition to meeting the needs of the domestic market, the industry has emerged as a major source of foreign exchange. Here again, the Syrian Arab Republic has reached a dominant position among the countries covered by ESCWA, accounting for almost 45 per cent of the overall MVA of the region's textile industry. Current government policy is directed at setting up more yarn-spinning factories to increase local content and value added and reduce the export of raw cotton.

The chemical branch (ISIC 351-356) constitutes another pillar of the Syrian manufacturing sector. It was built up with large public-sector investments, mostly during the 1970s and early 1980s. At the height of its operations, in 1981-1982, the industry accounted for almost one fourth of total MVA. However, its importance declined substantially throughout the crisis years of 1986-1990, when it suffered from capacity underutilization largely owing to the chronic shortage of foreign exchange with which to import spare parts and other essential inputs. While the situation has improved since 1991, the export prospects for the chemical industry seem problematic, as most production facilities are outdated and in bad need of rehabilitation. The industry produces a wide range of products such as fertilizers, detergents, pharmaceuticals, glass, paints and tyres.

The engineering subsector (ISIC 381-384), which has moved over the years towards the higher stages of import replacement of durable consumer goods, currently accounts for some 12 per cent of total MVA. It produces a wide range of industrial and consumer goods, including consumer durables such as electric motors, refrigerators, colour televisions and telephone sets.

Finally, cement and building materials are gaining increased importance in the manufacturing sector. Growth prospects for the cement industry are particularly encouraging, owing to a buoyant domestic market and great export potential. The industry is operating nearly at full capacity, and several cement projects are coming on stream, with old factories being rehabilitated and new joint venture (public and private sector, local and foreign) production facilities being set up.

G. Employment in industry

The greatest socio-economic challenge facing the Government is the above-world-average growth rate of population, the increasing proportion of young people in the age pyramid (60 per cent under the age of 25 and 42 per cent under the age of 15), high unemployment (although no official figures are available), underemployment and seasonal employment and the relatively low proportion of the total population in the labour force. Urbanization is high, at around 51 per cent, but population growth in the major cities slowed to 4.5 per cent in 1980-1988. Government efforts are directed at containing migration to the cities, improving rural infrastructure and providing incentives for rural industrialization.

The latest census in the Syrian Arab Republic was carried out in 1984. Since then, the authorities have provided estimates of demographic growth rates, total population and employment figures. The results of a new census and statistical coverage of socio-economic activities carried out in 1994-1995 in cooperation with UNDP are due to be released in 1996.

The country's population in 1995 was estimated at around 14 million. Its annual growth rate is put at around 3.3 per cent, one of the highest rates in the world. The proportion of the economically active population is less than a third of the total: in 1992, the workforce was put at 3.3 million and the total population at 12.96 million.⁷

Agriculture continues to be the largest employer of the workforce, although the statistics do not show seasonal employment and underemployment. The manufacturing sector is the second most important source of employment. In 1992, it employed more than 450,000 people, almost half of the 915,000 employed in agriculture. Combined with mining and public utilities (electricity, gas and water), manufacturing industries absorbed more than half a million members, or about 14 per cent, of the workforce.

UNIDO reports different figures on employment in manufacturing, largely because it follows the ISIC classification of manufacturing branches.³ These show that the manufacturing sector employed slightly fewer than 130,000 people in 1992. The main employment providers in that year were food products, textiles, furniture (except metal) and other non-metallic mineral products (table 3). Far behind were tobacco, other chemicals and footwear. All the other subsectors employed 3 per cent or less of the total manufacturing workforce.

Table 3. Employment, wages and salary and their share in MVA, 1992^a
(Percentage)

<i>Branch (ISIC)</i>	<i>Share in manufacturing sector employment^b</i>	<i>Share in total wages and salaries of employees^c</i>	<i>Share of wages and salaries in MVA^d</i>
Textiles (321)	18.6	19.3	24.6
Food products (311)	19.2	28.0	35.6
Petroleum refineries (353)	3.0	4.3	13.3
Other chemicals (352)	4.8	6.9	32.4
Tobacco (314)	5.3	[--]	25.9
Other non-metallic mineral products (369)	10.9	10.3	37.2
Fabricated metal products (381)	2.8	2.7	13.2
Footwear, except rubber or plastic (324)	4.6	3.9	26.1
Leather products (323)	1.2	2.4	25.5

Source: UNIDO, "A statistical review of economic and industrial performance for Syrian Arab Republic", January 1996.

^aAt current prices.

^bTotal number of employees in manufacturing was 127,077.

^cTotal wages and salaries of manufacturing employees was LS 7,273 million.

^dThe share of wages and salaries in MVA was 26.7 per cent for the manufacturing sector as a whole.

A comparison between 1992 and 1975 figures reveals the following trends: the textiles industry lost its dominant share in manufacturing employment (in 1975, 27.7 per cent of the total) to agro-business/foodstuffs, whose share declined only marginally (in 1975, 20.9 per cent). A noticeable increase in the share of total manufacturing employment during the 1975-1992 period was recorded by the following subsectors: furniture, except metal (from 6.9 per cent in 1975 to 10.3 per cent in 1992) and other non-metallic mineral products (from 5.9 per cent to 10.9 per cent). A significant decline in the share of manufacturing employment took place in fabricated metal products (ISIC 381, from 5.7 per cent in 1975 to 2.8 per cent in 1992) and printing and publishing (ISIC 342, from 1.4 per cent in 1975 to 0.5 per cent in 1992).

Industrial development and competitiveness and the ability to attract direct foreign investment will depend to a large extent on the availability of a skilled workforce; the ability to absorb and adapt new technology and innovation, new products and production processes; and product quality and compliance with international standards. The Syrian Arab Republic has a good track record for general education, literacy rates and school enrolment. The global literacy rate in 1993 has been put at 79 per cent, with 89 per cent for males and 79 per cent for females. Global school enrolment was 66 per cent.² However, the overall level of education and skills is generally acknowledged to be below international standards and requirements.

The country has a good potential for promoting female entrepreneurship in industry and rural industrialization. There is a relatively small number of female lawyers, doctors, members of Parliament, ministers, academics, teachers and nurses. Females in middle management are mainly in the tourism industry. A vast pool of unskilled or semi-skilled women workers are currently employed in manufacturing, particularly in the textiles, pharmaceuticals and agro-food industries. Low salaries and the availability of a semi-skilled and skilled workforce are one good reason for international companies and foreign investors to relocate production units to the Syrian Arab Republic or to start up joint ventures or equity participation in new ventures there.

To exploit the Syrian Arab Republic's human resources and prepare for the challenges of the twenty-first century, the Government will have to invest heavily in training facilities and awareness campaigns to cope with requirements for new skills and knowledge, in particular those needed for business management and entrepreneurship, technology absorption and adaptation, innovation in technology, products and production processes, R and D, international quality standards and certification, energy conservation, protection of the environment and sustainable industrial growth and social development.

H. Industry and the environment

Agriculture, industry and energy are key priority areas for development. Increasing concern for the sustainability of development in the Syrian Arab Republic has led over the past few years to a growing awareness of environmental protection and measures to ensure it. The Commission for Environmental Affairs and the High Environmental Council have been set up. A UNDP cooperation programme with the Syrian authorities for environmental management planning and water and land resources management is under way. It forms part of the approved UNDP Fifth Country Programme for the Syrian Arab Republic (1992-1996).⁸ With energy conservation and protection of the environment as part of its global strategy and priority themes, UNIDO is involved in an effluent treatment project in the tanneries sector.

I. Industry, exports and international competitiveness

Since the late 1980s, the Government has embarked on a policy that combines export promotion and import liberalization. This policy has become a major plank of official long-term industrial development strategy. It replaces the policy of import substitution industrialization and protectionism pursued over the preceding two decades. However, the Government will have to strike a balance between, on the one hand, the need to liberalize the trade regime and allow the import of raw materials and capital goods for export-oriented industries and, on the other hand, the need to protect small and medium-size manufacturing industries so they can compete in the local market and build up export capabilities.

External trade, i.e. the sum of imports and exports, accounts for more than two thirds of the GDP of the Syrian Arab Republic, demonstrating the country's interdependence with the global market and world economies. The merchandise trade balance recorded structural trade deficits for three decades until the late 1980s. Then, until 1992, large trade surpluses were achieved owing to a combination of soaring oil export revenues and a sharp rise in largely private sector non-oil exports of manufactures. Since 1993 this trend has been reversed, and large trade deficits have re-emerged. The reversal was largely due to a drop in oil export receipts, a collapse in private sector exports to the markets of the former Soviet Union and a surge in imports. Facilitated by import liberalization, the sharp rise in demand for imported capital goods was driven by the private sector's response to favourable investment legislation as well as by government resumption of major industrial and infrastructure schemes. The latter were mainly financed by funds from countries in the Persian Gulf area and, to a lesser degree, from Japan, the European Union and individual European countries.

The 1970s showed strong annual growth in manufactured exports of nearly 14 per cent, while from 1980 to 1991 the rate slowed to 9 per cent, to yield an average increase of nearly 13 per cent per year for the period 1970-1991.⁹

The need for the Syrian Arab Republic to diversify its manufactured exports and improve their competitiveness has become more urgent in view of its declining reserves of oil, the major export commodity. At current production levels, proven oil reserves are estimated to last only 10 years, i.e. early into the twenty-first century.

The Government's promotion of the private sector and export-oriented industries has already yielded results: in 1994, the private sector accounted for 27 per cent of total exports and almost 60 per cent of non-oil exports, while its share of the total import bill rose to 63 per cent. According to UNDP, private sector imports of raw materials, machinery, equipment and consumer goods increased by 500 per cent between 1987 and 1992.² However, private sector performance was most impressive before the collapse of the former Soviet Union and of eastern European markets: in 1989 and 1990, the private sector's share in total exports (including State oil exports) reached 48 per cent and 44 per cent, respectively, while its share in imports represented 43 per cent and 46 per cent of the total.⁵

Two significant trends are clear from the composition of exports (table 4) during 1988-1993:

- The rising share of crude oil in total export revenues (from 24 per cent in 1988 to more than 60 per cent in 1993).
- The declining share of major manufactures in exports, in particular textiles (whose share fell from 20 per cent in 1988 to less than 8 per cent in 1993); petroleum products (from 20 per cent to less than 7 per cent) and other industrial products (from 13 per cent in 1988 to 4 per cent in 1992).

Table 4. Composition of external trade
(Percentage of total revenue/outlay)

<i>Product</i>	<i>1988</i>	<i>1990</i>	<i>1993^a</i>
Exports			
Crude oil	24.4	34.9	60.1
Petroleum products	19.7	10.3	6.6
Textiles	24.0	21.2	7.9
Raw cotton	3.3	3.6	5.5
Fruit and vegetables	3.2	4.3	n/a
Other industrial products	13.4	14.5	n/a
Imports			
Machinery and equipment	21.0	15.8	17.8
Metal and metal products	16.5	15.4	14.7
Other foodstuffs	12.1	21.7	10.3
Chemicals	11.4	10.2	9.8
Transport and equipment	4.6	3.9	13.2
Textiles	6.2	7.1	7.5
Petroleum products	6.1	1.6	3.9

Source: Government of the Syrian Arab Republic, Central Bureau of Statistics, General Directorate of Customs.

^aProvisional figures.

While these trends are partly due to the sharp increase in oil revenues during the period, in value and volume terms, the implications are nevertheless of concern for the authorities, given the continuing depletion and the limited remaining life of the country's oil reserves and the increasing need to generate foreign exchange from the export of manufactured goods.

Policy formulation to promote export-oriented industries and to enhance their international competitiveness will also have to take into account the changing pattern of the country's export markets and major trading partners. From 1988 to 1992 the European Union was the dominant trading partner in terms of both exports and imports. However, until the break-up of the former Soviet Union and the socialist command economies in eastern Europe, these countries had, as a group, been the main customer for Syrian goods, while the European Union was the main market for Syrian oil exports. Thus, in 1988 and 1989, the Soviet Union, eastern European countries and China took 41 per cent and 42 per cent, respectively, of all Syrian exports, compared with 34 per cent and 31 per cent for the European Union. By 1992, the eastern markets had collapsed, reflected by the drop in their export market share to less than 6 per cent, while the European Union share in the Syrian export market had risen to 63 per cent.

The trade pattern of the Syrian Arab Republic in the first half of the 1990s was marked by the dominance of Italy, Germany and France as the main trading partners, both in terms of exports and imports (table 5). Japan and the United States of America have been important suppliers, while Lebanon and Saudi Arabia have remained the most important regional export markets.

Table 5. External trade: main trading partners, 1994

<i>Destination of exports</i>	<i>Share of total (%)</i>	<i>Origin of imports</i>	<i>Share of total (%)</i>
Germany	18.2	Italy	10.8
Italy	13.8	Germany	10.5
Lebanon	13.0	Japan	9.4
France	10.8	France	5.3
Saudi Arabia	3.8	United States	4.1
Spain	3.6	Turkey	3.7
European Union	53.8	European Union	37.1

Source: Economist Intelligence Unit, *Statistical Abstract, 1995*, Country Report, Syria, second quarter 1996.

II. Major constraints on industrial sector development

A. Policy formulation and implementation

The policy makers of the Syrian Arab Republic are facing a daunting task. They are confronted with a plethora of strategic and structural changes that require a different approach to, and greater flexibility in, the formulation of national economic and industrial strategies and policy directives to replace traditional five-year development plans, adjust to the rapid transformation of the domestic and international socio-economic environment and thus prepare the country to meet the global challenges of the twenty-first century.

The conditions prevailing in the Syrian economy, particularly in the industrial and manufacturing sectors, were outlined in chapter I. In a developing country with an economy in transition, pressures for government policy formulation and implementation stem mainly from a rapidly increasing and highly youthful population, high urbanization and the shift from a centrally planned towards a market- and export-oriented system designed to generate growth in the economy, create employment and secure social development and progress.

With the Government's long-term strategy having made both the manufacturing and industrial sector and the agriculture sector key development priorities, the further development of agro-industries and closer linkages between it and manufacturing (foodstuffs and textiles, in particular) are evident, as is greater rural industrialization.

To achieve its long-term objectives—i.e. raising the standard of living and ensuring the fair distribution of income—by providing an enabling environment for the successful operation of the public, mixed and private sectors in manufacturing industries, the Government faces constraints in policy formulation and implementation at three levels.

1. Physical infrastructure, in particular, power, transport and telecommunications

Although the construction of large power plants is under way, power cuts remain frequent. The increasing use of generators by the private sector in industry has increased fuel consumption and is placing severe strains on the Government's long-term energy policy. The problem is compounded by the prospect that the country's oil reserves will be depleted within 10 years.

The upgrading and expansion of the telecommunications system since the early 1990s is entering its second phase, but access to a telephone line remains limited, and the number of people who have a telephone is far below the regional average. Fax machines have been authorized in the last few years, but computer modems to connect business to the Internet and other international networks for data transmission have yet to be given official authorization. Difficulty of access to industrial information services, domestic and international, is a major constraint for the development of export-oriented industries and their competitiveness.

2. The legal and regulatory framework

Although the Government has adopted measures to create a stable macroeconomic and regulatory environment conducive to productive investment, export industries and entrepreneurship, there remain

serious shortcomings in fiscal, monetary and exchange rate policies, market deregulation, legislation and their implementation. Among these shortcomings is the problem of conflicting legislation, with foreign exchange controls remaining in place, although under Law No. 10 investors are exempt from these controls. The multi-tier exchange rate remains to be unified, but this has to be weighed against the inflationary pressures arising from unification. Prices have been only partially deregulated, and most subsidies remain in place. The corporate income tax of around 60 per cent is excessive (again, there are tax holidays under Law No. 10). Bank deposit rates are negative in real terms and do not encourage savings. Plans for the opening of a stock exchange to mobilize domestic savings and channel them into productive investment have yet to materialize. The overdue modernization of the State banking sector is currently limited to the upgrading of services and computerization of the Central Bank and the Commercial Bank of Syria. There is no effective and efficient financial intermediation (e.g. investment banks and investment funds or other financial instruments for private sector debt or equity finance). The private sector, now being actively promoted by the Government, has only limited access to domestic public credit and international finance. Foreign direct investment, particularly non-Arab investment, is slow in coming, the main reasons being (apart from political uncertainty) legal and regulatory shortcomings, the absence of a financial market, guarantees for legal redress and commercial arbitration and a stifling bureaucracy. In addition, labour law, commercial laws and the trade regime need to be extensively revised to suit a market-oriented system.

In its assessment of constraints on the private sector, a UNIDO mission to the Syrian Arab Republic in early 1995 singled out ownership laws, licensing regulations (which were even applicable to SMIs) controls on imports, distortions in trade and tariff policies, fiscal and taxation policies, as well as serious constraints in the area of institutional support services required for effective private sector development.¹

3. Public sector reform

Law No. 20 of 1994 stipulates the decentralization of public sector industries and provides for State enterprises to be given more financial and managerial autonomy and responsibility. It is designed to improve efficiency, productivity and profitability and make public sector companies commercially viable. In theory, the law should remove or reduce political interference, State subsidies and dependence on resources allocated from the centralized State budget. However, changing the mentality, approach and attitude needed to carry out the reform would involve large-scale training and educational programmes and awareness campaigns. Added to this is the poor performance and low MVA of many, if not most, of the industrial SOEs as a result of poor maintenance, outdated technology and know-how, underutilized capacity, lack of spare parts and industrial inputs, lack of foreign exchange and restricted access to finance. For export-oriented SOEs, the collapse of traditional markets in eastern Europe and the former Soviet Union has been the final blow to their revenue-generating ability. The shift from social considerations to cost considerations in management and employment policies will require a large investment in human resources, training, technology absorption and adaptation, innovation and R and D.

Another major constraint is the effective implementation of the concept of "economic pluralism" and export promotion. With Law No. 10, the Government has created a favourable climate for productive investment in all three sectors (public, mixed and private) and provided scope for SMIs. But to promote export industries, particularly new ventures and business upstarts, it will have to strike a balance between, on the one hand, trade liberalization, allowing the import of essential raw materials and industrial inputs, and, on the other, the protection of local, i.e. import substitution, production.

B. Institutional and organizational capacity building

In the current transition period, easing the main constraints on industrial support institutions, including chambers of commerce and industry, business associations, export promotion and investment agencies and industry-related services (consultancies, information services etc.) will require structural changes in two areas.

1. Reform of State-owned enterprises

Industrial SOEs need decentralization and reform to allow them to respond to market demand and to improve their commercial viability, productivity and competitiveness. The main constraints for the successful management, organization and operation of public sector industrial enterprises (see also preceding section on policy) remain low MVA, poor maintenance, poor capacity utilization (owing to the shortage or lack of imported spare parts and industrial inputs), a low level of local content in production, outdated technology or ill-adapted imported technology, the shortage or lack of foreign exchange and restricted access to finance (bank credit, debt and equity financing instruments).

There are also major constraints on industrial export promotion. The industrial base is suffering from a lack of diversity, not only across industrial subsectors, but also within some of them, a fact that was highlighted in a UNIDO study on the country's major industrial subsectors.¹⁰

The human resource factor in the public sector is equally important. Besides low motivation, a lack of incentives and overstaffing, there is also a generally low level of skills and qualifications. Traditional public sector managers are ill-prepared for the structural changes needed for modern management and production methods, marketing skills, procurement services, technology and innovation, new information systems, computerization and automation etc. Equally, the administrative, technical and professional skills of the workforce need to be upgraded and updated.

2. The private sector and SMIs

The promotion of private sector development, SMIs and small export-oriented industries requires a different approach and the active involvement of industrial support institutions and industry-related services. Chambers of trade and commerce and other industrial support institutions lack the means, training facilities and qualified personnel to provide adequate information services, training courses, technical and legal assistance, nor are they able to provide advice on technology acquisition, adaptation and innovation; product quality control and international standards certification (ISO 9000 and ISO 14000); energy conservation and environmental protection measures, including water resource management and industrial pollution abatement; export markets, international trade and investment regulations, financing options, industrial clusters, linkages and cross-border alliances, partnerships and joint ventures; or on licences and franchising opportunities and modalities. In particular, there are few local consultancy firms to carry out feasibility studies, market research, financial and business analysis and projections or to provide engineering, maintenance, operation and other industry-related industrial consultancy and information services.

C. Entrepreneurship development and industrial information services

So far, the manufacturing industries of the Syrian Arab Republic are generally ill prepared to face the challenges posed by globalization and interdependence or the implications of international trade and investment, innovation and technology, modern cross-border information and data transmission systems, energy conservation and environmental protection, product quality standards (ISO 9000) and compliance with international conventions such as the Uruguay Round agreements.

The Government's structural reform policy, which covers SOEs, private sector manufacturing SMIs and export promotion) requires the development of an entrepreneurial class and mentality. The Syrian Arab Republic has a dynamic and thriving class of private sector entrepreneurs, with a long merchant and industrial tradition that was never totally eliminated under a socialist, centrally planned economy. However, it will require major government efforts and an investment in training and human resource development to change the mentality, approach, skills and qualifications of management and staff in the bureaucracy and in public sector industrial enterprises. A serious constraint will be the apparent lack of political will within the establishment to change the status quo.

The Syrian expatriate community is estimated to hold very large amounts of financial assets abroad. The Government is keen to attract part of these funds for repatriation and productive investment in the country. Favourable investment legislation has been passed, but political factors as well as questions about the Government's commitment to economic liberalization (as outlined in chapter II, section A) and inconsistencies in the legal and regulatory framework continue to deter large foreign investors, joint ventures and industrial partnerships and cross-border alliances.

The main constraints on the development of entrepreneurship and business management in the country's manufacturing and industrial sector include the poor performance or the shortage of industrial support institutions and industry-related services, including industrial information services (as outlined in chapter 2, section B), the failure of government policy to provide an enabling environment or, more importantly, managerial and business training and training in the skills and professional qualifications (technical, vocational, engineering, scientific, including computer and information technology sciences) required to develop an efficient, export-oriented manufacturing sector and international competitiveness.

PART TWO: STRATEGIC ISSUES

III. Proposals for a country support strategy for the Syrian Arab Republic

A. Facing global challenges: the strategic objectives and priority programmes of the United Nations Industrial Development Organization

Chapter III summarizes UNIDO strategic objectives and priority programmes for 1996 and 1997 in the context of the priorities of the Government of the Syrian Arab Republic for industrial development and international competitiveness.

It highlights actual and potential areas of cooperation with the Government and identifies UNIDO expertise and know-how in providing support services that meet the requirements of the country's long-term industrial development strategy and policy implementation.

Section D points out some major bilateral and multilateral development agencies and international donors that are active in the country and whose area of activities are, or could be, covered by UNIDO support services (the list of agencies and donor countries is indicative only). The purpose of the section is to provide orientation and guidance for possible UNIDO cooperation and financing strategies on joint programmes for country-specific support services.

The chapter draws on a recent United Nations country strategy note,⁴ the UNIDO country programming report,⁶ and the report on a technical support strategy for UNIDO.¹ It is also based on UNIDO's seven priorities and on *Report of the Global Forum on Industry: Perspectives for 2000 and Beyond*. Section D relies heavily on UNDP coverage of aid and development programmes and sources of finance.

Table 6 lists the seven priority themes of UNIDO and summarizes the programmes for 1996 and 1997.

Table 6. The seven priority themes of the United Nations Industrial Development Organization

<i>1. Strategies, policies and institution-building for global economic integration</i>		
<i>The challenges</i>	<i>UNIDO support programmes and expertise</i>	<i>Linkage with Syrian Government priorities</i>
Industrial development has led to increased integration and globalization of markets for goods, services, technologies, finance, production locations and labour. This has been accompanied by greater international division of labour based on specialization and comparative advantage, expanded transnational networks and enterprise alliances, and an extensive development of global communications and information systems.	<p>Core services:</p> <ul style="list-style-type: none"> ⇒ Policy advice and support to policy implementation ⇒ Promotion of business organizations ⇒ Seminars on industrial economics ⇒ Consensual policy formulation systems ⇒ Restructuring of government agencies ⇒ Support to regional development 	M
<i>2. Environment and energy</i>		
<p>International policy agenda: UNCED 1992, adoption of Agenda 21 and related conventions. Implications and challenges for industrial policy and industrialization patterns in developing countries:</p> <ul style="list-style-type: none"> ⇒ To ensure protection and conservation of environmental resources in the most cost-effective manner ⇒ To meet obligations under global environment treaties ⇒ To avert potential competitive disadvantages for developing countries that may emerge from international environmental norms and standards 	<p>UNIDO support programmes and expertise:</p> <ul style="list-style-type: none"> ⇒ Environmentally sustainable development strategies ⇒ Clean and safe production ⇒ National cleaner production centres ⇒ Implementation of international protocols, agreements and conventions, including the Montreal Protocol and the United Nations Framework Convention on Climate Change ⇒ Industry-related norms and standards <p>UNIDO expertise:</p> <ul style="list-style-type: none"> • Improving efficiency in industrial energy and use • Promoting renewable energy systems • Promoting clean coal technology • Improving industrial energy management skills and capacities • Disseminating information on energy supply and end use • Improving efficiency of fossil-fuel power plants • Raising awareness of new and innovative financing for energy supply and efficiency projects 	M

3. *Small and medium-size industries*

Enhancing the role of competitive SMIs. Implications for SMIs of: ⇒ Global economic integration, international investment and trade flows ⇒ Energy conservation, environmental protection and sustainable industrial development ⇒ Innovation, productivity and quality enhancement ⇒ Information, investment and technology promotion ⇒ Rural industrial development and linking agriculture with industry	Cross-sectoral nature of UNIDO support strategies (priority themes 1-7): ⇒ Promote decentralized support services as well as networking between and among SMIs, support institutions and governments ⇒ Promote equitable access to support services, taking into consideration regional imbalances and gender issues ⇒ Introduce a commercial orientation in the provision of support services: cost-effectiveness and sustainability ⇒ Focus on building national capacities and use local expertise whenever possible ⇒ Coordinate and network with complementary programmes of other agencies ⇒ Integrate advice, training and action-oriented research UNIDO support programmes: • Policy analysis and advice • SMI support systems and institutions (including promotion of private consultancy networks) • Networking of SMIs (including promotion of industrial subcontracting and partnerships and subsectoral clusters of SMIs)	✓
--	--	---

4. *Innovation, productivity and quality for international competitiveness*

Challenges and implications of trade liberalization, Uruguay Round trade agreements etc. Key determinants of international competitiveness: integration in international networking; flexibility and speed of the design, production and commercialization processes. At the enterprise level: ⇒ Core capabilities and skills in production, management and commercial services ⇒ Efficiency in organization and technical production systems ⇒ Efficiency in sourcing, distribution and international networking ⇒ Total quality control, flexible manufacturing, energy efficiency and environment protection	UNIDO support programmes: ⇒ Enterprise restructuring and privatization ⇒ Research and development for industrial innovation ⇒ Quality management	✓
---	---	---

5. Industrial information, investment and technology promotion

<p>Increasing need to attract international foreign direct investment. This will affect technological innovation, market access and human resource development. Access to up-to-date technical, economic/financial, industrial and technological information, needed to take advantage of resources, changing technology, new market opportunities etc. and for strategic planning, export competitiveness and market access and the absorption and adaptation of new technology, products and production processes.</p>	<p>UNIDO support services will be offered at the policy, institutional and enterprise levels.</p> <p>UNIDO programmes:</p> <ul style="list-style-type: none">⇒ Technological and investment information (including the UNIDO Industrial and Technological Information Bank (INTIB) and reinforcing links with international data transmission systems, e.g. the World Investment Service (WINS) on the Internet and the World Wide Web). Investment promotion including support systems for SMIs, promotion of investment promotion agencies and investment promotion service offices (IPSOs); investment forums, IPSO networks, information and communication and human resource development⇒ Technology promotion, including capacity building in technology transfer negotiations: Techmarts and build-operate-transfer arrangements	[✓]
--	--	-----

6. Rural industrial development

<p>Challenges and implications of urbanization, dependence on the export of raw materials and commodities, structural shortcomings, market failures. Dominant share of agriculture in GDP in many developing countries. Scope and need for developing agro-industries. With the world population expected to exceed 8 billion in 2030, world supply of food will have to double.^a</p>	<p>UNIDO support programmes:</p> <ul style="list-style-type: none">⇒ Regional development⇒ Agro-processing (including development of animal protein resources; food quality and industrial competitiveness; food security; wood products and textile industry)⇒ Building materials and low-cost housing	[✓]
--	---	-----

7. Africa and the least developed countries: linking industry with agriculture

<p>According to a UNIDO study an efficient agricultural sector depends on the availability of a well-developed industrial economy. The UNIDO study on the linkage between agriculture and industry shows that industry</p>	<p>UNIDO support services and expertise:</p> <ul style="list-style-type: none">⇒ Agro-processing (food processing and preservation)⇒ Subsector development, including wood industries, leather and leather products and the textile industry⇒ Agricultural equipment	[✓]
--	--	-----

provides at least 50 per cent of all inputs to agricultural development and another 25 per cent of indirect inputs, making a total of at least 75 per cent of all inputs. This implies, *inter alia*, that countries that are self-sufficient in food production and have become net exporters of food are high up on the industrialization scale.

- ⇒ Chemical industry inputs to agriculture
- ⇒ Associated support programmes, including energy and environment, SMIs, development of women entrepreneurs, capacity building, industrial investment and industrial policies and strategies
- ⇒ Regional and subregional cooperation

Note: Areas of particular relevance in the context of the Government's own priorities (dealt with in section B) are marked [✓] for cross-reference to sections B and C.

World Bank, World Development Report 1992: Development and the Environment (Washington, D.C., 1992) and *World Population Prospects: 1992 Revision* (United Nations publication, Sales No. 93.XIII.7).

B. Government priorities for industrial development and international competitiveness

The main government strategies, objectives and policy direction to prepare the Syrian Arab Republic for the challenges of the twenty-first century were outlined in chapter I, section B, and chapter II, section A. This section highlights government priorities for industrial policy formulation and implementation to develop the country's manufacturing industries and improve their international competitiveness, based on chapters I and II. The focus is on potential areas of cooperation with UNIDO on development issues that were jointly identified by Syrian authorities and members of UNIDO technical missions to the country. In the areas that need to be addressed and for which the Government is seeking advice and assistance, UNIDO technical expertise, experience and know-how provides the basis and competitive edge for unique support services to the Government of the Syrian Arab Republic.

The transformation of the Syrian economy from a centrally planned to a market-oriented system is designed to prepare the country for the global challenges of the twenty-first century. The authorities have accorded priority to the development of the country's manufacturing industries and their export capabilities, in conjunction with the expansion of the predominant agricultural sector, the promotion of agro-industries and the exploitation of the potential for tourism.

A structural reform process is under way to achieve these strategic objectives. Its main components are as follows:

- Restructuring industrial SOEs to improve their efficiency, productivity and commercial viability. Presidential Decree No. 20 of 1994 provides for greater managerial, financial and commercial autonomy for public sector companies.
- Promoting private sector activities, particularly in manufacturing industries and SMIs. Law No. 10 of 1991 for the encouragement of productive investment was designed for this purpose.
- Encouraging export-oriented industries and direct inward investment (foreign and expatriate).
- Providing for the transfer, absorption and adaptation of technology and an improvement in locally based research and development.

- Providing an enabling environment for public, mixed and private sectors to operate successfully, enhance their export capabilities and attract foreign direct investment.

To secure the country's socio-economic development, the Government aims to generate growth in the economy, create employment and generate foreign exchange revenues to finance the following:

- Human resource development.
- The absorption and adaptation of technology.
- The improvement in production and export capabilities and international competitiveness.

Aware of the global challenges and their implications for the Syrian Arab Republic, particularly the urgency of training requirements and information campaigns and capacity building at the policy, institutional and enterprise levels, the Government is seeking cooperation with international development agencies and donors for its national development programmes.

There is a heavy emphasis on the absorption and adaptation of modern technology for local use, particularly for manufacturing industries and the main industrial subsectors (see chapter III, section C). There is also concern on the part of the Government and the private sector for compliance with international trade, finance and environmental agreements, such as the Uruguay Round agreements, the Montreal Protocol on Substances That Deplete the Ozone Layer; international product quality control and standards (ISO 9000 certification) and eco-labelling (ISO 14000). The Government is making efforts in the area of energy conservation, protection of the environment and sustainable industrial growth. Government programmes are under way—in conjunction with international development agencies—to improve industrial information services and the statistical coverage of socio-economic, financial, industrial and trade data. There is, as well, great scope for rural industrialization and for the development of small-scale food and textile industries and of industry-related services (consultancy for private businesses and for the public sector, which more and more may wish to outsource some production and services).

UNIDO's specialized support services and expertise, as summarized in chapter III, section A, would appear to match Syrian requirements for its economy in transition and its overall industrial development strategies.

C. United Nations Industrial Development Organization expertise and support services: country-specific options

Several UNIDO missions to the Syrian Arab Republic in 1994 and 1995 assessed the country's industrialization and industrial policies and identified areas for UNIDO technical assistance and cooperation with the Syrian authorities for the long-term development of the country's manufacturing and industrial sector within the framework of official strategies and policy direction. The areas are those in which UNIDO has special expertise and where it would have the competitive edge in providing support services that meet the requirements of the country's overall development objectives.

A financing strategy for the implementation of officially approved programmes will identify potential sources of financing (United Nations system, multilateral, bilateral and other potential donors, such as Arab development finance institutions like the Islamic Development Bank).

A list of areas in which UNIDO could provide technical assistance and enter into projects in the Syrian Arab Republic was compiled for the TSS-1 study.¹ For the sake of clarity and because project areas may overlap, the list has been divided into two broad categories:

- The first category deals with issues across the whole industrial sector, i.e. the restructuring of the public sector, development of the private sector, SMIs, human resource development, technology development and linkages with industry, competitiveness and the development of exports, environmental protection etc.
- The second category deals with issues specific to the five selected industrial subsectors (food, textiles, chemicals, engineering, and cement and building materials).

These potential areas for UNIDO technical assistance have been arranged under 13 objectives, which are shown below in order of priority. They are linked with ongoing projects, wherever applicable.

Objective 1. Improving the efficiency and productivity of the public sector

Improvements associated with the restructuring of the institutional framework for industry:

- Design and implementation of an institutional framework for industry in line with Law No. 20:
 - (a) Design of the institutional framework;
 - (b) Translation of the framework into guidelines.
- National campaign to familiarize staff of the Ministry of Industry, institutions and enterprises with the institutional framework.
- Industrial information network for industry linking the Ministry of Industry, institutions and major enterprises.
- Development of the Ministry of Industry's capabilities in the formulation and implementation of industrial policies (training programmes for key policy areas).

Objective 2. Improving the efficiency of enterprises of the public and private sector

Study on the causes of the decrease in MVA in Syrian industry and recommendations on measures to increase it. Transfer of systems and training programmes either to selected enterprises/plants or to institutions and consulting firms, which can transfer them to enterprises/plants across the whole industrial sector. These systems and training programmes concern the following fields:

- Plant management and operations.
- Industrial maintenance includes five components:
 - (a) Establishment of a national industrial maintenance policy;
 - (b) Establishment or reinforcement of institutional infrastructural support for industrial maintenance;

- (c) Transfer of computerized maintenance software and programmes at the plant level;
 - (d) Development of domestic support services for maintenance (local spare parts production, maintenance workshops, consulting and contracting maintenance firms);
 - (e) Training programmes for plant management, maintenance staff and managers, and specific training for trainers.
- Quality control and ISO 9000 certification.
 - Development of marketing capabilities (product design, advertising, packaging, exports).

Objective 3. Development of the private sector and SMIs

Assistance to chambers of commerce and industry and enhancement of their capabilities in the fields of:

- Technical and marketing information (links with the Industrial and Technological Information Bank (INTIB), UNIDO industrial statistics and other relevant databases of UNIDO).
- Transfer of management, operations and maintenance systems.
- Training in management, operations, maintenance and marketing.
- Consultancy and advisory services.
- Establishment of a single window for industrial investors, simplification and rationalization of procedures.
- Special support to SMIs.
- Developing subcontracting and partnership exchange schemes.

Objective 4. Competitiveness and implementation of export-oriented policies

Competitiveness and implementation of export-oriented policies:

- Reinforcement of the Foreign Trade Centre.
- Promotion, support and position of incentives to exporting industries.
- Standards, total quality management and ISO 9000 certification.
- Development of exports to neighbouring countries.

Objective 5. Human resource development and industrial training

- Policy, strategies and planning for human resource development and position of training for industrial sector.

- Strengthening and/or establishing institutions/centres for human resource development and R and D.
- Development of trainers and the training of managers from industrial enterprises.
- Management of human resource development and training for total quality management/engineering and other industrial modernization techniques.
- Human resource development and training for SMIs.

Objective 6. Technology support services

- Information and documentation services.
- Development of computer services and software packages for industry. Continuation of the project "Consultancy services regarding computer applications in office and industry" (US/SYR/90/180). Project amount: US\$ 47,300.
- Industry-related and consulting services, with six components:
 - (a) Establishment of a national policy for science and technology development;
 - (b) Design of an adequate institutional framework to implement the national policy for science and technology development;
 - (c) Institution-building and reinforcement of key institutions (identified under (b) above) that have an influence on the development of national project implementation capabilities for industry-related and consulting services;
 - (d) Measures concerned with training in modern engineering methods and technology management;
 - (e) Measures concerning external assistance to local firms for domestic execution of R and D and consulting/engineering projects;
 - (f) Measures concerning the undertaking of systematic reviews to evaluate and update the national programme for the development of industry-related services.

Objective 7. Environment and industrial pollution abatement

- Assistance to strengthen the capabilities of the ministries of environment and industry and environment institutions in managing environment issues and programmes.
- Direct assistance to subsectors and enterprises.
- Ongoing assistance to be continued as follows:
 - (a) "Support to strengthening the General Commission for Environmental Affairs to implement Montreal-Protocol-related activities" (MP/SYR/93/148). Project amount. US\$ 235,180;

- (b) "Phasing out of CFCs at Al Hafez Refrigerators Company" (MP/SYR/94/412). Project amount: US\$ 2,883,277;
- (c) "Preparatory assistance in the treatment of tannery wastes in the Zablatani-Damascus industrial area" (DP/SYR/92/004). Project amount: US\$ 430,000.
- Future possible candidate plants or sources for industrial pollution abatement.
 - (a) Dust emission from the nine cement plants;
 - (b) Phasing out of asbestos at Eternit Co.;
 - (c) General Company for Fertilizer (Homs);
 - (d) Batteries Company (General Establishment for Engineering Industries);
 - (e) Other sources of industrial pollution identified in the TSS-1 study.¹

Objective 8. Assistance to subsectoral general establishments for food, textiles, chemical engineering, cement and building materials

- Review the role of general establishments in line with Law No. 20.
- Development of the General Establishments capabilities in providing support services to enterprises of the subsector. Support services refer to industry-related and consulting services, particularly intensive information and knowledge-based services, which need to be strengthened or created by any of the three levels (policy, support institutions or enterprises). It could be a major part of the new role of the General Establishments, which according to Law No. 20 on the autonomy of enterprises cannot interfere in the management of public enterprises but could help industry support service firms in R and D, consulting and engineering design, information, marketing/advertising, maintenance etc.

Objective 9. Food industry

- Development, through better use of land and water, of high-value-added crops to increase exports of processed food.
- Rural agro-industries enterprise development.
- Feasibility studies for infrastructure development for the food industry.
 - (a) Chilling facilities for fruits;
 - (b) Packaging houses;
 - (c) Cold storage;
 - (d) Fruit processing plants;
 - (e) Vegetable processing plants;

- (f) Transportation systems;
- (g) Electrical and water supply;
- (h) Infrastructure for workers.

Objective 10. Textile industry

- Increase in the capacity utilization of existing public sector plants for cotton processing.
- Modernization of public sector spinning plants.
- Introduction of CAD/CAM design in selected plants (mainly potential exporters) of the public and private textile subsector (continuation of an ongoing project).

Objective 11. Chemical industry

- Rehabilitation of the paper mill at Deir El-Zoor and of the footwear and lamp factories.
- Feasibility study for the regrouping of tanneries outside urban areas.
- Introduction of total quality management in selected plants and ISO 9000 certification for selected products that are candidates for export.
- Upgrading technological processes and equipment in selected plants of the subsector (mainly the Tyre Company, the National Rubber Company and the Plastics Company).

Objective 12. Engineering industry

The General Organization of Engineering Industries has developed an engineering office of about 20 engineers and technicians. This office carries out design work. It needs to be developed in order to be able to assume more important and comprehensive functions.

- Introduction of modern management methods by enterprises of the subsector.
- Assistance in training and qualification of technical labour in production and maintenance works.
- Assistance in studying, developing and upgrading machines to enable improving quality and exportation to foreign markets.
- Assistance to Barada company in replacing freon gas by the alternative gases that do not affect the ozone layer.
- Assistance in modernizing the laboratories to control and test products (cables, iron, batteries etc.).
- Assistance in the use of cleaner technologies in the companies of the subsector.
- Assistance in introducing quality control systems to enable application of ISO 9000.

Objective 13. Cement and building material industries

- Rehabilitation of old production facilities.
- Maintenance systems and training including preventive maintenance programmes for all plants of the subsector.
- Establishment of a consulting engineering unit with the most experienced professionals of the subsector.
- High-level expertise is needed for six months to one year to assess long-term solutions to technical problems hampering operation of the major plants.
- Industrial pollution abatement: the main source of pollution comes from dust emissions caused by maintenance problems in the filters.
- Training centre: the training centre for the cement industry established at the Adra cement plant, expected to have a training capacity of 200 staff per year, is still not in operation and requires assistance with training programmes, trainers and didactic tools.

D. Coordination and cooperation with other development agencies and donors

The potential cooperative projects between UNIDO and the Government of the Syrian Arab Republic would be carried out at the policy, institutional and enterprise levels. They would focus on training (capability building), the implementation of economic reform policies (SOEs, SMIs, export promotion, creating an enabling environment etc.) and compliance with international agreements (e.g. Uruguay Round agreements, ISO 9000 certification, energy conservation and environmental protection) and technology absorption and its adaptation to suit local needs. UNIDO technical assistance would target the main industrial subsectors.

In addition to funds administered by the United Nations system (such as the Multilateral Fund for the Implementation of the Montreal Protocol), a number of major donors and sources of financing could be considered for future UNIDO projects in the Syrian Arab Republic, particularly in view of the growing role of the private sector in the economy: the European Union, the Overseas Economic Co-operation Fund of Japan and various Arab development finance institutions. The last-mentioned have contributed an estimated \$3 billion in project finance since 1991. They include the Abu Dhabi Development Fund, the Arab Fund for Economic and Social Development, the Arab Petroleum Investments Corporation, the Islamic Development Bank, the Kuwait Fund for Arab Economic Development and the Saudi Fund for Development.

The European Union is involved in the upgrading (modernization and computerization) of the Commercial Bank of Syria and the Central Bank of Syria and in the promotion of SMIs. It is also partially financing the rehabilitation of power transmission systems. Arab funds are mainly financing large infrastructural and industrial projects in the Syrian Arab Republic (e.g. power generation, telecommunications, a steel mill, fertilizer plants, a yarn spinning plant). Arab funds are the largest single source of concessionary and grant finance in the country. Other major sovereign donors have been Japan (power stations), China (power/high dams) and Germany (infrastructure).

The bulk of external assistance is now directed at investment project assistance and free-standing technical cooperation. According to UNDP² most of the external assistance recorded in 1993 was

official development assistance (ODA), 63 per cent of which came from bilateral sources. The energy sector received 45 per cent of the total ODA of \$112 million. Humanitarian aid and relief received \$20 million (mostly from UNRWA) and agriculture received \$13 million. An energy project was allocated \$30 million but the amount was carried over to 1994 because of delays in project implementation.

Notes

¹UNIDO, "Syrian Arab Republic, TSS-1 study: Policies/strategies for the industrial sector", draft document, April 1995.

²UNDP, *Development Co-operation, Syrian Arab Republic: 1993 Report* (Damascus, 1994).

³UNIDO, "A statistical review of economic and industrial performance for Syrian Arab Republic", January 1996.

⁴United Nations, "The Syrian Arab Republic: first country strategy note for cooperation with the United Nations system (1996-2000)", draft document, Damascus, September 1994.

⁵ASIM & C, *Executive Communicator: Business Brief Syria*, August-October 1995.

⁶UNIDO, "Country programming brief, Syrian Arab Republic", November 1995.

⁷International Monetary Fund, *International Financial Statistics*, Washington, D.C.

⁸UNDP, *Fifth Country Programme for the Syrian Arab Republic, 1992* (DP/CP/SYR/5).

⁹World Bank, World tables cited in UNIDO, "Technology, manufactured exports and competitiveness", background paper for the Global Forum on Industry: Perspectives for 2000 and Beyond (ID/WG.502/5-SPEC.).

¹⁰UNIDO, "Strategies and policy options for the Syrian industry", Project UC/SYR/88/225, Advisory Services to the Syrian Arab Republic on Industrial Strategies, November 1990.