

CHAPTER SEVEN

THE PRIVATE SECTOR

7. THE PRIVATE SECTOR

Successive five-year development plans have increasingly emphasized the development of the private sector within the context of a free market economy with the aim of preparing this sector to become a major pillar of economic activity. Towards this end, the plans adopted a set of policies, incentives and regulatory initiatives that contributed to expanding the private sector's role in the national economy and steadily increasing its economic efficiency. This has been positively reflected in the sector's response to the government directions related to privatization.

During the preparation of the Seventh Development Plan, the Ministry of Planning carried out a comprehensive survey of private sector establishments in 1420 (1999) with the aim of defining indicators of present conditions, structural features and challenges facing this sector, thus contributing to the credibility of related economic forecasts and the selection of the best available policies, measures and initiatives to enhance the role of this sector in the coming phase of the development process.

7.1. MAIN FEATURES AND PRESENT CONDITIONS OF THE PRIVATE SECTOR

7.1.1. Increasing Role of the Private Sector in the National Economy

The steady improvement in the private sector's economic efficiency (in investment, production and institutional terms) is considered among the outstanding achievements of the development plans over the past thirty years. The number of operating factories increased from 199 in 1390/91 (1970) to 3,123 in 1419/20 (1999) while the number of companies in the private sector increased from 923 in 1390/91 (1970) to 9,302 in 1419/20 (1999). The share of the private sector reached 50.6 percent of GDP and 74 percent of non-oil GDP by the end of the Sixth Development Plan 1419/20 (1999). Total employment in the sector increased from about 1.83 million in 1390/91 (1970) to 6.16 million by the end of the Sixth Development Plan 1419/20, (1999). Currently, private sector employment accounts for 85.9 percent of total employment.

Table 7.1 shows the expanded role and diversification of the private sector in the achievements realized over the past three decades. Industrial investments increased from SR 2.8 billion in 1390/91 (1970) to SR 232 billion in 1419/20 (1999). Thus, the value added of the manufacturing industries sector increased during this period by a real average annual growth rate of 15 percent, more than doubling its contribution to non-oil GDP.

Table 7.1
Main Indicators of the Private Sector's Role
in the National Economy 1390/91-1419/20 (1970-1999)

Indicator	1390/91 (1970)	1419/20 (1999)
Number of Operating Factories	199	3123
Number of Private Sector Companies	923	9302
Contribution in GDP	33.3%	50.6%
Contribution in Non-Oil GDP	67.9%	74%
Contribution in Fixed Gross Capital Formation	47.3%	67.3%
Employment in the Private Sector (million)	1.83	6.16
Private Sector Employment as % of Total Employment	-	85.9

The government's support and subsidies (direct and indirect) have substantially contributed to accelerating the growth of the private sector during the early stages of the development process. However, the private sector is now capable of operating without government support and subsidies. The private sector establishments survey shows that government financial support to the private sector constitutes less than 5 percent of total private investment in 1418/19 (1998). Moreover, the private sector's implementation of government contracts accounted for only 13 percent of its total revenues in 1418/19 (1998), compared with more than one third of its total revenues ten years ago. The private sector currently sells over 80 percent of its output in the domestic market to non-government agencies, thus reducing its reliance on government subsidies while at the same time acquiring the ability to adjust to variations in the level of government expenditure in a flexible and efficient manner.

7.1.2 Structural Characteristics of the Private Sector

Despite the difficulty of describing the structure of the private sector in detail, the following indicators highlight the expanded and diversified activities of this sector:

- Small scale enterprises that employ less than 20 workers constitute the majority of the private sector's establishments recorded in the commercial register and absorb about 75 percent of the foreign labor force. This reflects the limited progress made in the field of Saudiization at these small private enterprises. It is noteworthy that the main structural feature of the private sector is reflected in the apparent gap between large and small firms in terms of profitability and Saudiization rates (Table 7.2).

Table 7.2
Comparison of Major Economic Indicators
of Large and Small Companies

Economic Indicator	Large Companies	Small Companies
Sales per employee (SR thousand)	486.0	158.0
Rate of Gross Return on Sales %	14.2	4.4
Rate of Return on Assets %	18.7	5.4

Source: Survey of Private establishments 1420 (MOP)

Furthermore, the private establishments' survey indicates that the sales of Saudi companies in the various domestic markets differ from one region to another. Thus, the Seventh Development Plan provides incentives to encourage the private sector to achieve more balanced growth among the various regions of the Kingdom and to limit the migration of population to major cities in search of better job opportunities. In this context, the Seventh Development Plan will see the establishment of new industrial cities in most of the Kingdom's regions.

7.1.3 Available Opportunities and Potential

The socio-economic developments expected during the Seventh Development Plan will provide more investment opportunities for the private sector. The Kingdom's accession to

WTO is expected to open up new global markets for Saudi private sector exports, boost the Kingdom's ability to attract foreign investment and expand the scope of joint ventures, and industrial investments. Other factors favorable to private sector expansion include:

- Steady population growth at relatively high rates will provide, along with increasing levels of income, a broad domestic market for the private sector's products.
- The Kingdom's abundant mineral resources, besides the large resources of oil and its derivatives.
- The growing use of advanced production technologies and modern management practices.

7.2 FUTURE CHALLENGES AND KEY ISSUES

7.2.1. Saudi Employment and Saudiization

Greater efforts are needed during the Seventh Development Plan to enhance the private sector's capacity to provide job opportunities for the steadily growing number of Saudi new entrants to the labor market, particularly as their absorption into the government sector will be difficult. Notwithstanding the fact that the private sector provided about 473,500 jobs for Saudis during the Sixth Development Plan compared with about 154,700 jobs provided by the government sector, the number of Saudi nationals still constitutes a modest percentage of total private sector employment. Studies prepared by the Manpower Council indicate that the majority of foreign labor in the Kingdom work in establishments employing less than 20 workers. At the same time, the private establishments' survey shows that the share of new private sector jobs taken by Saudis is rising, although constraints impeding the implementation of Saudiization must be overcome if this positive trend is to continue. The most significant constraints are:

- Current Saudiization policies in the private sector oblige establishments that employ 20 workers or more to increase the number of Saudi workers by an annual rate of 5 percent; however, this category of private establishments constitutes only a modest share of total private establishments. Moreover, this category of private establishments accounts for only about 25 percent of total private sector employment. Accordingly, the option of broadening the scope of this policy to encompass small and medium scale establishments must be studied.
- The private establishments' survey indicates that the high cost of employing Saudis relative to non-Saudis impedes the application of Saudiization in the private sector, particularly for labor intensive activities in the services sectors. Against this background, further measures to reduce the gap between the cost of employing Saudis and non-Saudis will have a positive impact on Saudiization rates in the private sector.
- The private establishments' survey also points to the importance of enhancing the qualifications of Saudis to match the productivity of foreign workers. This will require intensified efforts to train Saudis in the professions and skills required by the private sector and to enhance the professional and practical capabilities of Saudi workers. Changes in the educational curricula and training programs will be needed to ensure that Saudi graduates meet the requirements of the private sector, along with

media awareness campaigns on the importance of respecting labor and other relevant regulations.

7.2.2 International Trade Liberalization and Globalization

The Kingdom's expected accession to WTO will bring important advantages to the Saudi private sector by overcoming constraints on the development of non-oil exports, particularly petrochemicals, and by enforcing actions against dumping practices. Moreover, the stability and transparency of rules and regulations applicable to both indigenous and foreign firms alike will greatly enhance the environment for attracting foreign direct investments and expanding joint ventures. On the other hand, the private sector's activities will face several challenges, the most significant of which are:

Increased Competition

The Kingdom imposes relatively low tariffs on its imports compared to other countries. Thus, the Kingdom's accession to WTO will require only minor concessions which will be compensated by the benefits flowing from the development of non-oil exports and lower costs to consumers of imported products. However, the commitment to specific custom duty ceilings will pose a challenge for the future competitiveness of national products due to increased competition with foreign products.

Rationalizing Subsidies

Subsidies must be reduced and rationalized in the context of preparing the national economy to deal flexibly and efficiently with new developments, particularly the commitments resulting from the Kingdom's accession to WTO. Private sector investment and production policies must conform to these commitments if its competitiveness is to be enhanced without reliance on subsidies except for technical assistance which is expected to be intensified during the Seventh Development Plan period, to compensate for planned reduction of other subsidies.

Competition in Service Sectors

Accession to the WTO will require changes in current laws regulating investment, foreign workers and ownership and operation of enterprises. Consequently, the services sectors will become open to foreign investments, thereby leading to a gradual increase in competition as foreign companies enter the services sectors. The modernization and development of the services sectors will contribute to a more diversified and advanced production base and reduce the Kingdom's dependence on imported services, while expanding the economic activities of the private sector and providing additional jobs for Saudi nationals. In this context, the Council of Ministers' Resolution No. 7/B/6536 of 5-5-1420 approving the Cooperative Health Insurance System will pave the way for the private sector to expand its participation in the health sector.

7.2.3 Investment Environment and Incentives System

The private establishments' survey indicates that many companies perceive the need to develop the investment environment in the Kingdom in a way that will enhance private sector participation in various development activities. Some private establishments also

referred to difficulties associated with the settlement of disputes, which they believe constrains the growth of the private sector and, in particular, the attraction of foreign direct investments. The encouragement of cooperation and joint ventures with international firms is one of the Kingdom's key strategic objectives for the development of a diversified and advanced national economy. This strategy has contributed to the establishment of more than 1,300 joint ventures with a total capitalization of SR 131 billion. However, there has been a slowdown in the establishment of new joint ventures in recent years, and for this reason, the attraction of foreign direct investments and new joint ventures are among the major directions of the Seventh Plan.

7.2.4. Constraints Facing Small and Medium Scale Enterprises

Successive development plans have emphasized the vital role of small and medium scale enterprises in providing job opportunities for Saudis, and in generating greater diversification, increased productivity and flexibility for the national economy. The Seventh Development Plan stresses the role of small and medium scale enterprises in achieving the plans' objectives. However, some constraints on their activities must be overcome if the resources of these enterprises are to be fully mobilized, as described below.

Economic Feasibility Studies

Most small and medium scale enterprises launch their activities without adequate feasibility studies in highly competitive markets that are changing rapidly, thereby exposing themselves to various risks which could be reduced through improving the quality of the economic feasibility studies on which their investment decisions are based. In this context, Chambers of Commerce will be encouraged to prepare more comprehensive feasibility studies at nominal cost for these companies.

Generation Shift

Many Saudi family-owned firms are now facing a generation shift and will need to take legal steps to ensure continued business activity. Such firms may have to merge with other firms to become more competitive, so that some regulations may need to be changed and some form of institutional support may be needed for these companies to change their legal status while restructuring their activities.

Productivity and Management Efficiency

Small firms typically have lower organization and management standards due to a lack of technically skilled personnel and management experience together with poor accounting and record keeping standards, as well as inadequate technical capacity for market research and promotion activities. In order to improve their conditions, an adequate mechanism for rendering assistance, training and consultation to these establishments will be needed.

Constraints of Finance

Small and medium scale firms, particularly in the services sector, face difficulties in meeting conditions for loans and other types of credit from the banking system and government specialized credit institutions, thus limiting their access to finance and weakening their investment efficiency. Consequently, the commercial banks must be

encouraged to allocate a certain percentage of their loans to these firms. Moreover, firms with a capital base of less than SR 1 million face difficulties in obtaining their finance requirements, land and public services on soft terms. The Seventh Plan adopts measures to overcome these constraints through reconsidering all related regulations and encouraging the Saudi Credit Bank to expand its lending to small and medium scale firms.

7.3 EXPECTED ROLE OF THE PRIVATE SECTOR

The private sector will have an important role in achieving the development objectives laid down in the plan. The main objectives that will guide policies for the private sector during the Seventh Plan are to:

- Accelerate private sector growth to ensure more job opportunities for Saudi nationals, thereby improving the performance of the national economy and the standard of living.
- Further diversify the economic base with particular emphasis on increasing non-oil exports.
- Increase the Kingdom's capacity to adjust flexibly to rapidly changing technological and economic conditions at the global level.
- Raise the overall level of efficiency of the national economy through more efficient use of resources.

An extensive privatization process is expected to enhance the private sector's economic activity and increase the available opportunities for private investment (national and foreign). Thus, the following achievements are expected during the Seventh Development Plan period:

- An average annual growth rate of 5.04 percent for the non-oil private sector.
- A rise in the non-oil private sector's share of GDP from 50.6 percent in 1419/20 (1999) to 55.4 percent by the end of the plan 1424/25 (2004), reflecting the sector's leading role in diversifying the economy away from its dependence on oil exports.
- Growth of employment in the non-oil private sector from 6,161,200 workers in 1419/20 (1999) to 6,472,200 by the end of the plan 1424/25 (2004), accounting for about 94.6 percent of total new jobs created during the plan period.
- A small rise in the private sector's share of total employment from 85.9 percent at the beginning of the plan to 86.2 percent by the end of the plan.
- The provision by the private sector of 415,200 additional jobs to new labor market entrants through Saudiization of jobs available at the beginning of the plan, thereby increasing the proportion of Saudis employed in the private sector by the end of the Seventh Development Plan.
- A contribution of 71.3 percent of total planned investments by the non-oil private sector during the Seventh Plan period.

7.4 GOVERNMENT POLICIES AND INITIATIVES TO STRENGTHEN THE ROLE OF THE PRIVATE SECTOR

The Seventh Development Plan stresses the importance of accelerating the implementation of measures aimed at creating a more conducive environment for private sector business and attracting foreign direct investments. These measures are described below.

7.4.1. Boosting Dialogue and Deepening Communication Channels

During the Sixth Development Plan period, the government took important steps to develop dialogue and boost channels of communication with the private sector. Several seminars were organized dealing with a number of important issues, including the role of small and medium scale enterprises as well as the privatization of the electricity and health services. Furthermore, a series of meetings with representatives of Chambers of Commerce and Industry and businessmen were held to evaluate the proposed themes in the Seventh Development Plan and to discuss the role of the private sector in achieving the plan's general objectives and strategic bases. Responding to a proposal by the private sector, the efforts of concerned government agencies will be intensified in coordination with Chambers of Commerce and Industry to provide legal assistance and advice to Saudi firms on trade issues arising in the context of the Kingdom's accession to the WTO. As part of the efforts that will be exerted in the Seventh Development Plan to support the plan implementation and make the planning process more flexible, regular meetings with the private sector will be organized. This will contribute in overcoming constraints facing the private sector and will boost its participation in implementing the plan's objectives.

It is noteworthy that the recommendations of the Fifth Saudi Businessmen's Conference convened in Riyadh during 28-30 Rajab 1420 (6-8 November 1999) affirmed the harmony of viewpoints with the Seventh Development Plan directions of enhancing the private sector's role in the development process, and reflected the maturity of this sector as a partner in development.

7.4.2 Privatization Policies

The privatization process constitutes an important part of the government's long-term strategy to increase opportunities for the private sector and to enhance the efficiency and competitiveness of the national economy. A strategic plan for privatization has been developed in accordance with the Council of Ministers' Resolution No. 60 issued in 1418 (1998) which established the general framework of privatization. The Kingdom's privatization strategy is primarily driven by goals to improve economic efficiency and expand the investment opportunities for the private sector. The strategy encompasses the following major objectives:

- Encourage private sector investment and its effective participation in the national economy, as well as increasing its share of GDP.
- Broaden the national ownership of productive assets.
- Encourage national and foreign investment in the Saudi economy.
- Increase job opportunities, ensure optimal employment of Saudi nationals and continue increasing per capita income.
- Enhance efficiency and competitiveness of the national economy to withstand regional and global competition particularly in light of the Kingdom's accession to the WTO.
- Provide affordable and timely services to citizens and investors.
- Rationalize public expenditure and alleviate burdens on the state budget by allowing the private sector to finance the provision, operation and maintenance of some services.

- Increase government revenues through several instruments such as the proceeds of participation in activities to be privatized, the financial returns accruing from granting concession rights and the revenues generated from privatizing part of the government share in some projects.

In the context of these objectives, privatization is based on four major themes as follows:

- Mobilization and channelling of private capital to finance already executed new public projects which experience financing problems.
- Extend contracts to the private sector to manage and operate public projects.
- Gradual privatization of government shares in joint stock companies or transfer of ownership (partial or total) of some projects from the government sector to the private sector.
- Promote a positive investment climate through maintaining economic stability, providing incentives, developing stock markets and reviewing all private sector related regulations with the aim of streamlining procedures and overcoming constraints.

This strategy conforms to the principles and guidelines of the program as well as the management of its implementation process. The Ministerial Committee on Privatization is responsible for coordinating privatization policies and supervising the implementation program. This committee has assigned to the Public Investment Fund the technical tasks of managing, implementing and monitoring the privatization process. The privatization strategy also covers the level, methods and stages of the private sector's participation, as well as the scope of activities in the context of the strategic nature of these activities.

The following implementation steps have been completed during the Sixth Development Plan period:

- Tasks related to the management, operation and maintenance of port berths, as well as the provision of associated equipment, have been assigned to the private sector in accordance with the Royal Approval issued in 1417 (1997) and the Council of Ministers' resolution issued in 1419 (1999) which assigned to the private sector a greater role in the management and operation of ports, and called for a review of organizational structures and related procedures, a feasibility study on establishing free trade areas at the ports and the linking of the two ports of Jeddah and Dammam by a railroad.
- The education sector implemented a system allowing the private sector to finance the construction of schools and to participate in providing higher education services through private colleges. In the coming phase, the private sector will expand its participation in financing the establishment of general and higher education projects as well as the establishment of private universities and colleges.
- The Council of Ministers' resolution 169 of 11-8-1419 approved the restructuring of the electricity sector. This will lead to the merger of all electricity service companies and electrical projects affiliated to SCECO in one company named "Saudi Electricity Company".

- A Saudi Joint Stock Utility Company has been established in the twin industrial cities of Jubail and Yanbu to operate, maintain, manage and expand the tasks of infrastructure utilities as part of the privatization program. Three years after its establishment, some shares in the company will be offered for public subscription.
- The Saudi Telecommunications Company was established as a business-oriented stock company providing all telecommunications services previously provided by the MOPTT. Positive results are expected in terms of improved efficiency and these will be supported by other measures aimed at attracting foreign direct investments and advanced-technology companies. Future privatization programs will cover Saudi Railways Organization (SRO), Saline Water Conversion Corporation (SWCC), SAUDIA and Grain Silos and Flour Mills Organization (GSFMO).

7.4.3 Supporting Small and Medium Scale Enterprises

The Seventh Development Plan adopts several measures and initiatives to support small and medium scale enterprises while complying with the Kingdom's commitments under WTO. The most important of these measures and initiatives are:

- Streamline procedures for establishing small and medium scale enterprises to eliminate associated routine constraints and enhance technical and administrative support for these firms.
- Study the possibility of establishing a special fund, with government and private sector participation, to facilitate access to loans by small and medium scale enterprises and develop Islamic financing instruments such as Musharaka, Murabah and Mudaraba to further broaden finance opportunities available to these enterprises.
- Expand the lending activities of the Saudi Credit Bank.

7.4.4 Development of Non-oil Exports

The Kingdom's expected accession to the WTO during the Seventh Development Plan, the establishment of the GCC Customs Union by 2001 and the Greater Arab Free Trade Area, together with bilateral agreements with various countries (including a possible free trade agreement between GCC and the European Union) will open up new markets for Saudi non-oil products. To take full advantage of the opportunities that these steps will create, measures will be needed to assist Saudi exporters to overcome hurdles in accessing international markets for non-oil products. Currently, the Saudi Exports Development Center affiliated with the Council of Chambers of Commerce and Industry, compiles information about foreign markets. The Center is expected to develop further its marketing channels and expand its range of services to Saudi exporters, while imposing charges on beneficiary companies to cover the costs of providing such services.

7.4.5 Improving the Regulatory and Investment Environment

The third strategic base of the Seventh Development Plan highlights the importance of an accelerated review of all regulations related to private sector activities so that procedures can be streamlined and constraints overcome. Relevant agencies are currently considering measures to improve the regulatory and investment environment in the Kingdom to realize the following objectives:

- Adjustment of the foreign capital investment law in line with the Kingdom's accession to the WTO as well as encouragement of foreign investments in the Kingdom.
- Establishment of a "one-stop-shop" system where services are provided for Saudi and foreign investors, and all administrative procedures required for registering and licensing new investment projects are processed as fast as possible.
- Streamlining administrative procedures in relevant ministries and agencies to speed up the decision making process. The aim will be to create a system with emphasis on a set of clear, easily understood rules to be applied in ways similar to business practices in other countries. Customs clearance procedures will also be streamlined.
- Exerting intensified efforts to disseminate information on various economic, regulatory and procedural issues related to economic activities. In this context, all laws and regulations affecting foreign and domestic firms will be promptly published and will be readily available to all firms in one location.
- Attracting foreign investments and encouraging joint ventures.
- Reforming and improving procedures for the settlement of commercial disputes and arbitration in line with the Kingdom's accession to the WTO.
- Exerting intensified efforts to strengthen intellectual property rights through, *inter alia*, improved enforcement of agreements reached in the context of WTO with the aim of attracting technology-intensive foreign investments.

7.4.6 Saudiization Policies

Saudiization policies during the Seventh Plan will be oriented towards achieving the dual goal of improving the competitiveness of Saudi private firms which will operate in a more competitive environment as the Kingdom joins the WTO, while at the same time accelerating the Saudiization process. This entails the application of Saudiization policies that are consistent with labor market requirements along with steps to increase the level of Saudi employment, such as:

- Taking measures to broaden the scope of Saudiization to include small and medium scale firms through providing financial incentives for firms employing more Saudis, on condition that Saudiization rates are adequate in each sector.
- Ensuring that the education system meets labor market requirements, with emphasis on the technical and practical skills to ensure the availability of qualified Saudis consistent with the Kingdom's development priorities, and strengthening the Committee on Quality at the Ministry of Education by including private sector representatives as permanent members of the committee.
- Giving high priority to the expansion of training centers and the organization of special evening training courses offered by private business consulting firms. These facilities will target, in particular, owners and managers of small and medium scale firms.
- Giving high priority to the launching of a national information campaign to demonstrate the significance of work as a religious and social value, with the aim of

changing attitudes towards professions and trades which are deemed undesirable by some citizens.

- Reviewing the costs of recruiting foreign labor in a regular manner, while raising penalties for illegally employing foreign nationals and establishing a fund for the training of Saudis.

7.5 DEVELOPING FINANCIAL INSTITUTIONS AND MARKETS

7.5.1 Role of the Financial Sector

The easy loans provided by the Specialized Credit Institutions have assisted the private sector financially over the course of previous five-year development plans. However, these institutions now depend on repayments of outstanding loans to finance new loans, which may result in their failure to meet the private sector's future funding needs. Accordingly, the private sector is expected to call on other financing resources such as equity capital. The Seventh Plan, therefore, adopts measures for encouraging savings and overcoming the financial constraints facing private sector establishments.

Notwithstanding the expected increase in the need for finance during the Seventh Development Plan, substantial financial resources are available in the form of demand deposits, savings and other financial assets at domestic commercial banks, as well as in the form of financial investments held abroad. However, the mobilization of these financial resources will require major steps to be taken to make the financial and non-financial investment climate in the Kingdom more attractive, particularly by improving the financial system's institutional and regulatory framework. Specifically, new instruments must be introduced to meet the expanding need of private companies for long-term financing. This will also require the adoption of measures to support the conversion of private sector establishments into joint stock companies and the development of stock markets.

Gross capital formation in the Seventh Development Plan is estimated at about SR 671.72 billion at constant prices of 1414/15 (1994), of which SR 478.48 billion is expected to be invested by the non-oil private sector, or about 71.3 percent of total investments during the plan period.

7.5.2 Mobilization of Financial Resources

7.5.2.1 Private Sector

The Saudi private sector has large investments in some developed countries. The investment environment in the Kingdom is now conducive to the repatriation of these investments into the Kingdom, thereby contributing to overcoming the financial constraints facing the private sector. On the other hand, several indicators point to the positive attitude towards saving and investment by Saudi nationals. These indicators reflect the steady increase of demand and time deposits as well as savings accounts held in commercial banks. Moreover, subscriptions to the initial public offerings and rights issues of shares during the first half of the past decade were 5-8 times the value of issued shares, which reflected the keenness and attitude of the Saudi citizen towards investment. In its policies

to encourage savings, the Seventh Development Plan emphasizes the importance of making savings more attractive to citizens.

7.5.2.2 Commercial Banking System

The role of commercial banks in financing private sector activities has expanded significantly, as reflected in the increase of total liabilities by over 20 percent in 1418/19 (1998). While the share of medium and long-term lending in bank credit has increased, the dominant share (75 percent) of commercial banks' lending is still short-term. However, some banks now offer long-term financing, particularly to the petrochemical industries and the construction sector. A basic financial infrastructure for mobilizing private savings now exists in the Kingdom through the extensive bank branch networks, the increased use of banks for paying employee wages and salaries, and other new bank instruments. At the same time, however, the banks still need to develop their activities in a way that would allow them to enter new activities and expand their long-term lending to the private sector.

7.5.2.3 Equity Capital Markets

Stock market indicators in the Kingdom reflect the need to develop these markets during the Seventh Development Plan period. Market capitalization at about 40 percent of GDP by the end of 1417/18 (1997) is low by international standards. Only 74 companies are listed in the stock market, while trading of shares, which takes place through commercial banks, is below target levels and is dominated by transactions in a few companies. Since 1415/16 (1995), the volume of investment in new stock issues has been low compared to the total value of market capitalization, and below the saving potential of individuals and their manifest interest in stock market investments. The market for government bonds has developed over the past decade, but bond issues are not available as a source of corporate financing. The significant role expected from this source will contribute to the efficient management of private sector companies and the improved allocation of financial resources, along with the expected decline in the role of specialized credit institutions.

7.5.2.4 Specialized Credit Institutions

Five specialized credit institutions in the Kingdom provide low-cost medium and long-term financing to the agriculture, industry and housing sectors. The role of these institutions has declined as their new lending is now limited to repayments of outstanding loans, reflecting the government's policy that lending and borrowing activities should be based on market requirements and mechanisms.

7.5.2.5 Insurance and Pension Funds

These funds represent a large potential source for meeting the economy's need for long-term financing. In accordance with the adopted regulations, Saudis employed in public sector institutions contribute to the Retirement Pension Fund, while private sector employees contribute to the General Organization for Social Insurance (GOSI). Currently, these funds are invested in government development bonds, domestic projects or

investment funds. The returns on investment in government bonds are set by market conditions for different maturities. New avenues to achieve higher returns on assets and current contributions to these funds will have to be reviewed to ensure their long-term capacity to meet future pension payment obligations.

7.5.2.6 Repatriation of Saudi Capital Invested Abroad

Currently, the roughly 105 commercial bank-managed investment funds, as well as the many non-bank financial intermediaries which currently operate in the Kingdom, invest the dominant share of their assets abroad. It is estimated that the investment funds existing in the Kingdom have assets abroad more than ten times the size of investments in the Kingdom. Part of the reason for this capital outflow is attributed to limited investment opportunities in the local stock market. Against this background, the Seventh Development Plan will aim to reduce these outflows and encourage the repatriation of Saudi-owned funds invested abroad by creating an internationally competitive investment environment in the Kingdom.

Investment of these assets inside the Kingdom requires the development and expansion of local stock markets to provide greater choice and liquidity. The achievement of these objectives will require measures to boost the confidence of both Saudi citizens and foreign companies in investing in the Saudi economy, as well as measures to ensure competitive returns.

7.5.3. Development of the Financial Sector's Institutional Frameworks

Due to prudent regulations and the requirements for high capital adequacy ratios, transparent financial reporting and regular on-site inspection, the Kingdom's commercial banking system is very strong by international standards, as reflected in a risk-weighted capital adequacy ratio of 20 percent for 1418/19 (1998), as against the internationally agreed norm of 8 percent under the Basle agreement. The high degree of transparency in the disclosure of bank information is recognized by leading world rating firms. The risk-weighted capital adequacy ratios required by the Saudi Arabian Monetary Agency (SAMA) are amongst the highest in the world.

The regulatory framework of the financial sector has helped the Kingdom avoid the bank failures and the financial sector crisis that have marred some other emerging economies. Building on this framework, it is imperative to take immediate steps to initiate capital market reforms aimed at promoting the development of a strong stock market and encouraging investments in the Kingdom. Comprehensive development of the stock market will be introduced with the Kingdom's accession to the WTO through studying the following measures:

- Enacting a securities market law to complement the existing banking control law and the companies law, along with development of the capital market infrastructure in the Kingdom.
- Prepare and implement an adequate framework to regulate the securities issuance operations by non-bank financial institutions, including off-shore institutions.
- Develop a mechanism in order to regulate and oversee the activities of stock markets as is the case in other countries. The stock market regulatory agency should establish

procedures for issuing new shares with the objective of encouraging companies to convert to joint stock companies.

- Revise regulations for converting firms into joint stock companies, and facilitate the process of transformation, especially for innovative companies, and establish the institutional and regulatory framework to enable the private sector raise capital through the issuance of corporate bonds.
- Provide facilities to ensure small and medium-sized firms' access to capital, provided that these facilities will be an integral part of the Kingdom's policies related to diversification and employment creation.
- Issue regulations aimed at encouraging commercial banks to provide real estate mortgage lending, through appropriate coordination with relevant government agencies and departments.

CHAPTER EIGHT

DEVELOPMENT
OF NATURAL RESOURCES

8. DEVELOPMENT OF NATURAL RESOURCES

This chapter highlights the achievements of the Sixth Development Plan in the water, energy and mineral resources sectors. The chapter also deals with the key issues to be addressed during the Seventh Development Plan period, particularly economic efficiency and strengthening the role of the private sector. Finally, the chapter outlines the objectives, policies and programs of these sectors in the Seventh Development Plan period.

8.1. WATER SECTOR

8.1.1. Present Conditions

Since the Third Development Plan, the water sector in the Kingdom realized many achievements, the most important of which are: expanded construction of sea water desalination plants to meet the growing demand for water for domestic purposes, and construction of modern water distribution networks and related facilities throughout the Kingdom.

The following achievements were realized by the main water sector agencies during the Sixth Development Plan, namely the Ministry of Agriculture and Water (MOAW), Saline Water Conversion Corporation (SWCC) and Al-Hassa Irrigation and Drainage Authority (HIDA):

- Implementation of 76 water projects and provision of water by tanker trucks to villages and hamlets at the average rate of 593,000 tankers per year.
- Completion of the Custodian of the Two Holy Mosques' dam at Wadi Bisha with a holding capacity of 325 million cubic meter (mcm), as well as implementation of some small and medium dams - thereby bringing the total number of dams to 190 with a total holding capacity of 778 mcm. Work is under way in constructing 13 new dams with a storage capacity of 59 mcm.
- The SWCC provided operation and maintenance services to 27 desalination plants, operating with a total production capacity of 2.2 mcm per day. Work is under way in implementing 3 new desalination plants with production capacity of 826000 cm per day. The length of the pipelines transporting desalinated water for the inner cities of the Kingdom reached 3,263 km by the end of the Sixth Development Plan and an additional length of 627 km is under construction.
- HIDA implemented a project for the re-use of agricultural drainage water for irrigation. The project has contributed to boosting irrigation water resources by about 32 mcm per year. HIDA also drilled 10 more wells in Al-Hassa and equipped them with pumps, thereby compensating for the shortage of water resulting from lower water levels and the decreasing amounts of water flowing from the project's natural springs.
- Integrated efforts were made by various information media, in coordination with the MOAW, to enhance public awareness of the importance of water conservation and consumption rationalization. It is expected also to intensify the efforts deemed necessary to eliminate the phenomenon of excessive water consumption.

8.1.2. Key Issues

The most important issues which should be addressed during the Seventh Development Plan are as follows:

1. Water Conservation Measures

There is still a critical need to enhance the efficiency of measures related to the conservation of water and rationalization of consumption in all sectors. Measures for controlling water consumption must be enhanced to prevent wastage of water and ensure rational consumption; regulations for conserving water must be reviewed and strictly enforced; an incumbent mechanism for reducing water consumption in agriculture must be developed while expanding the use of water saving technologies; and national standards and specifications for all water facilities must be prepared. Water consumption and extraction from all sources should be monitored through effective metering, modernization of water transmission and distribution networks for domestic purposes, and adoption of effective measures to improve the collection system. Similar attention should be given to promoting public awareness about the importance of rationalizing water consumption, through the use of all types of information media.

2. National Water Plan

The preparation and approval of a national water plan is a very urgent matter. A draft plan was prepared during the period 1400-1402 (1980-1982) when there was a lack of sufficient information. Successive development plans stressed the need to prepare agriculture and water policy options that reflect the critical condition of water resources. It is imperative, therefore, to finalize the studies needed to prepare and approve the national water plan, in coordination with all research agencies.

3. Per Capita Potable Water in Major Cities

Water sector agencies have provided water to all consumer categories either free of charge or at nominal prices without any consideration of its high capital costs. As a result, per capita potable water consumption rose steadily in major Saudi cities from 120 litres/capita/day in 1400/1401 (1980) to about 315 litres/capita/day in 1419/1420 (1999). Strict measures and rules are now needed to control consumption through continuous metering of water use and to reduce losses in the distribution network through appropriate operation and maintenance. In addition, the success of the comprehensive national campaign for the rationalization of domestic water consumption requires a high level of awareness on the part of citizens and expatriates, expansion in the use of reclaimed waste water for suitable purposes, and a greater role for the private sector in the implementation and management of water projects. These measures are expected to contribute to the realization of the Seventh Plan priorities regarding water conservation, the rationalization of government expenditures and improved economic efficiency.

4. Development of Water Desalination Technology

The design capacity of the plants constructed along the Red Sea and the Arabian Gulf reached 2.2 million cubic meters (mcm) per day by the end of the Sixth Development Plan. Two technologies are used in the desalination process: the first is Multi-Stage Flash (MSF) for production of both water and electricity, and is the more common method. The second is the Reverse Osmosis (RO) method using membranes for the production of desalinated water only. Heavy fuel oil and natural gas are used as the main fuels to operate these plants. However, it is important to develop desalination technologies which are appropriate to the Kingdom's natural conditions, such as desalination through the use of solar energy and integrating multi-stage flash distillation processes with distillation using membrane technology. Moreover, emphasis should be placed on adopting techniques that will reduce costs and improve performance of the plants through the use of natural gas as the main fuel. In this context, the research and development center of the SWCC succeeded in developing a method for producing desalinated water using selective permeation membranes in the reverse osmosis plants.

8.1.3. Production Efficiency

Average labor productivity of the desalination plants during the Sixth Development Plan period increased to 4,175 cm/day/employee, at an average annual growth rate of 2.3 percent. It is noteworthy that the desalination plants meet 45 percent of domestic water demand.

The water consumption rate per unit area in the HIDA project has been reduced by 5 percent per year during the Sixth Development Plan period without any adverse impact on the project's productivity.

8.1.4. The Role of the Private Sector

The private sector has participated in various water related activities, such as drilling of wells, construction and maintenance of dams, implementation of potable water distribution networks, provision of potable water by tankers, operation and maintenance of potable water projects, implementation of projects for re-use of reclaimed wastewater for agricultural purposes, as well as supply and installation of pumps and equipments for water projects. The private sector is expected to play a greater role during the Seventh Development Plan period, not only in the areas of implementation, operation and maintenance, but also in the domains of finance and management, and thereby contribute to improving economic efficiency in its broadest sense (investment, production and organization).

8.1.5. Development Strategy

The Seventh Development Plan comprises an integrated strategy for developing the water sector. This strategy includes the following objectives, policies and programs:

8.1.5.1. Objectives

The main objectives of the water sector during the Seventh Development Plan are as follows:

- To continue with the supply of potable water in sufficient quantities and good quality.
- To consider water as a basic factor and an important determinant in assessing the economic viability of public and private projects.
- To conserve water resources and rationalize water consumption.
- To increase the role of the private sector in management, operation and maintenance of water facilities.

8.1.5.2. Policies

The main objectives of the water sector will be realized through adoption of the following policies during the Seventh Development Plan period:

- To review the existing policies of the agriculture and water sectors and to regulate water consumption priorities.
- To reconsider the administrative organization of the water sector and consolidate all agencies responsible for management of this sector into a single autonomous agency.
- To support a computerized central database covering all aspects of water affairs.
- To expand and upgrade the hydrological and hydrogeological monitoring network.
- To expand application of advanced methods and technologies for conservation of water and improvement of utilization efficiency, in cooperation with the Saudi research centers.
- To develop and support renewable surface and ground water resources by utilizing precipitated (rain) and runoff water, and supporting the dams construction program.
- To update the detailed hydrogeological studies and to issue the national water plan in cooperation with universities, KACST and related government agencies.
- To improve the system of collecting water fees.
- To enhance the role of the private sector in the field of water services.
- To develop non-conventional water resources, including construction of desalination plants and appropriate facilities in order to support other sources of water, as well as implementation of projects for re-use of reclaimed waste water and agricultural drainage water.
- To develop Saudi manpower in the water sector.

8.1.5.3. Programs

Water sector programs in the Seventh Development Plan concentrate on water resources development, potable water supplies, rationalization of water consumption and

conservation of water resources, construction of desalination plants, and conducting studies and research. These programs aim at the development of ground and surface water resources, implementation of potable water supply projects, rationalization of water consumption for domestic, industrial and agricultural purposes, meeting the increasing demand for water through construction of more desalination plants and related facilities, conducting hydrological and hydrogeological studies, as well as studying the impact of using agricultural drainage and reclaimed waste water in irrigation.

8.1.6. Growth Targets

The water sector is expected to undertake a set of measures during the Seventh Development Plan that will contribute to the achievement of long-term objectives and will intensify efforts to address the issues hindering the growth of the sector. The measures lay emphasis on analyzing the water policy, in coordination with the agricultural sector, conducting detailed hydrogeological studies, issuing an updated national water plan, and enhancing the efficiency of operation and maintenance of water facilities, including desalination plants.

In implementing these measures, the national water balance will be reconsidered to ensure a reasonable equilibrium which takes into account the capacities of the available water resources and the demand for water for all purposes.

It is noteworthy that there are two types of renewable water resources in the Kingdom:

1. Renewable surface and ground water in the Arabian Shield

Such water resources are generally available in the Arabian Shield which comprises about one third of the Kingdom's area. The main sources of water are rain and run-off water and these are used to meet directly the requirements of rainfed agriculture or are recharged in alluvial deposits and dam basins. The quantity of renewable water in the Arabian Shield is about 5,000 mcm per year.

2. Renewable ground water in the principal and secondary aquifers and alluvial deposits in the sedimentary area

The main sources of such water are rain and run-off water which penetrate to recharge the principal and secondary aquifers and the alluvial deposits located in the continental sedimentary shelf. This type of water is extracted through drilling of shallow wells and is used for drinking and irrigation purposes. The annual amounts are estimated to be around 3,000 mcm.

In this connection, it is planned during the Seventh Development Plan to keep the rate of consumption of renewable ground water and surface water at their present levels and to limit the increase in the rate of consumption of non-renewable deep ground water. At the same time, non-conventional water resources will be increased to meet part of the water demand for domestic and municipal purposes, by an annual rate of 5.8 percent for desalinated water and 11.5 percent for reclaimed wastewater for agricultural purposes. Table 8.1 shows the planned National Water Balance during the Seventh Development Plan.

Table 8.1
Planned National Water Balance during
the Seventh Development Plan
(million cubic meters/year)

Description	Estimates for	
	1419/20 (1999)	1424/25 (2004)
Demand for water:		
- Domestic and Municipal purposes	1750	2030
- Industrial purposes	450	600
- Agricultural purposes	18540	19850*
Total Demand	20740	22480
Available Water Resources:		
- Renewable surface and ground water (Arabian Shield)*	5000	5000
- Renewable ground water (continental shelf)*	3000	3000
- Non-renewable ground water (deep)*	11769	13120
- Desalinated sea water	791	1050
- Reclaimed waste-water	180	310
Total Available Water Resources	20740	22480

* *MOAW projections*

8.2. ENERGY

8.2.1. Present Conditions

The Kingdom's energy sector plays a major role internationally due to its unique status in oil production, refining and exports. This sector also assumes a position distinct from other sectors of the national economy as it is the largest source of government revenues, the major positive component of the balance of payments, and a primary contributor to capital formation.

Table 8.2 shows developments in the key indicators of oil and natural gas and the average annual growth rates during the Sixth Plan.

The Ministry of Petroleum and Minerals (MOPM) is responsible for formulating and executing the policies of the energy sector as well as its supervision. ARAMCO is responsible for all activities pertaining to oil and related industries. The Arabian Oil Company Limited and Saudi Texaco Company also undertake such services in the divided neutral zone.

Table 8.2
Key Indicators of Oil and Natural Gas during the Sixth Plan

	1414/1415 1994	1418/1419 1998	Annual Growth Rate %
Kingdom's production of crude oil (mbd)	8.05	8.28	0.71
Crude Oil Reserves (bb)	261.4	261.5	0.0
Natural Gas Reserves (tcf)	190.1	214.3	3.0
Kingdom's Share in OPEC's			
Crude Oil Production (%)	32.2	29.7	- 2.0
OPEC's Share in World Oil Production (%)	39.9	40.8	0.6

mbd million barrels per day.

bb billion barrels.

tcf Trillion cubic feet.

The following major achievements were realized during the Sixth Plan:

- Discovery of 13 new fields, including 4 fields recently discovered south of Riyadh city in the central region. These fields contain ultra light Arabian crude as well as quantities of sweet gas in Ghawar field at Aljouf deposits in Al-Othmaniah region, following a similar discovery in Shudgum. This indicates that a formation containing sweet gas stretches along the eastern side of the giant Ghawar field.
- Total oil production during the first four years of the Sixth Plan amounted to 11.8 billion barrels. However, the Kingdom maintained its crude oil reserves level of 261.5 billion barrels, i.e. it has succeeded in compensating every barrel of oil produced.
- Development of Shuaiba field in the Empty Quarter which started production in 1418/19 (1998) at a level of 500,000 barrels per day.
- ARAMCO provided all types of gas for the industrial needs of the Kingdom. It continued the implementation of projects with the aim of improving and expanding the main gas network which constitutes the backbone of industrial development in the Kingdom through the provision of methane, ethane, propane and butane.
- Natural gas reserves in the Kingdom, increased during the Sixth Plan from 190.1 tcf in 1414/15 (1994) to about 214.3 tcf in 1418/19 (1998) most of which is associated gas. ARAMCO has been putting extensive efforts into exploring for non-associated gas, culminated by the discovery of the Widaihy and Shamaa fields.
- Additional gas supplies were developed in the eastern and central regions where they will help to meet the growing demand for energy and satisfy the needs of industrial development. Work has already started on the construction of a huge gas plant in Alhawiyah in the eastern region, which will be capable of processing 1.4 million standard cubic feet (mscf) per day of non-associated gas in 1422/23 (2002). This

plant will be the first in the main gas network dedicated to processing non-associated gas. In addition, the ongoing expansion projects of the three existing gas plants (Shidgum, Othmaniah and Berry) will more than double total processing capacity.

- Output of refined products has grown at an annual rate of 1.4 percent from 551.6 million barrels (mb) in 1414/15 (1994) to 584.1 mb in 1418/19 (1998). However, production capacity of refineries remained effectively unchanged throughout the Sixth Plan.
- With respect to domestic energy consumption, price adjustments for some refined products in the first year of the Sixth Plan helped to moderate the growth in primary energy consumption, where consumption increased by 2.6 percent annually from 1,436,100 to 1,593,900 barrels of crude oil equivalent (bcoe). This is indicated in Table 8.3, which also shows refining capacity and domestic consumption of petroleum products along with relevant average annual growth rates during the Sixth Plan.
- Distribution networks for refined products were developed, thereby increasing the supply of premium gasoline, diesel and heavy fuel oil to the South Western Region. Work is under way on the construction of a 350 km pipeline for transporting petroleum products from the Eastern Region to Riyadh city and Al-Qassim Region. This pipeline will help replace 1,650 tankers currently engaged in transporting refined products to these locations.

Table 8.3
Refining Capacity and Domestic Energy Consumption
during the Sixth Development Plan
(thousand barrels of crude oil equivalent per day)

	1414/1415 1994	1418/1419 1998	Average Annual Growth Rate % 1414/15-1418/19 (1994-1998)
Refining Capacity	1570.0	1675.0	1.6
Production of refined products	1551.2	1600.3	1.4
Domestic Consumption of Primary Energy:	1436.1	1593.9	2.6
- Refined products	752.1	805.9	1.7
- Crude oil for direct combustion	210.0	260.0	5.5
- Natural gas	474.0	528.0	2.7

Source: Ministry of Petroleum and Mineral Resources

- The oil tanker fleet of the Vela Company, owned by ARAMCO, currently comprises 27 tankers, including 4 very large tankers, 19 large tankers for crude oil and 4 tankers for refined products.
- Joint ventures have expanded with the conclusion of an agreement to establish a joint venture with the Greek company, "Hilas", in the field of refining and distribution. This is in addition to already existing joint ventures in the U.S.A., the Philippines and South Korea.

8.2.2. Key Issues

Optimal Energy Utilization in the Domestic Market

Strategic objectives of the Seventh Plan include the optimal utilization of energy in the Kingdom and maximizing value added for the national economy. To achieve these objectives, the plan will aim at the following:

- Continue to develop natural gas reserves and supplies mainly for the domestic market and to make optimum economic use of natural gas, crude oil and refined products as fuel or feed stock in industry by considering the marginal costs of these resources while maximizing value added for the national economy. This will include supplying the Central and Western regions with natural gas in a gradual manner to ensure optimal utilization of this resource.
- Continue to price various types of fuel (diesel, fuel oil, crude oil and natural gas) to reflect their relative values.
- To improve the efficiency of collecting revenues for fuel used by government agencies.

8.2.3. Productivity

Restructuring the energy sector continued during the Sixth Plan with the aim of improving productivity. Employment levels in Saudi ARAMCO during the first four years of the plan are a good proxy for productivity. Production capacity has increased despite the fall in total employment from 57,486 in 1414/15 (1994) to 55,532 employees in 1418/19 (1998). Productivity is expected to improve further in future due to the managerial and operational measures being implemented as part of the process of restructuring the energy sector. Furthermore, the private sector will have the opportunity to participate in the energy sector, particularly in the natural gas sub-sector, and this will create a competitive climate in the energy industry, thereby leading to improved productivity.

8.2.4. Role of the Private Sector

The private sector engages in several activities in the energy sector, such as direct investment in refining and in production and refining operations in the Divided Neutral Zone. Saudi ARAMCO offers a number of business opportunities for private sector participation in support activities related to exploration, production, refining and distribution. The role of the private sector is expected to increase during the Seventh Plan, as the Saudi and foreign private sectors will participate in all aspects of the natural gas industry, as stipulated in the plan's strategy for the energy sector.

8.2.5. Development Strategy

The development strategy of the energy sector will be implemented through the following objectives, policies and programs:

8.2.5.1. Objectives

The main objectives of the energy sector during the Seventh Development Plan are as follows:

- To develop oil production operations using the best technical and economic methods, and to increase oil reserves.
- To preserve oil's share in world energy consumption as well as the Kingdom's position in the world oil market.
- To cooperate with the producing and consuming countries to ensure stability of the oil market.
- To increase the value added of the crude oil produced.
- To increase the supply and develop the reserves of natural gas and to expand its domestic uses so as to achieve the objectives of development and diversification of sources of income.
- To increase private sector participation in the petroleum industry.
- To enhance the efficiency and increase the level of integration of the Saudi petroleum industry, enhance its ability to meet domestic demand for petroleum products, and to achieve optimal performance in the domestic refining, distribution and marketing operations.
- To develop and qualify Saudi manpower in line with the requirements of the energy sector.
- To conserve water resources and rationalize their consumption in all processes of the oil industry.
- To protect local environment from pollution and to give due consideration to global environmental issues.
- To upgrade and strengthen the processes of surveying and map production needed for the implementation of various projects.

8.2.5.2. Policies

The major objectives of the energy sector in the Seventh Development Plan will be achieved through the following policies and measures:

- Continue oil exploration operations in the Kingdom in order to increase reserves using the most appropriate and latest exploration technologies.
- Increase refining capacity to the maximum economically feasible level.
- Integrate the Saudi petroleum industry at the international level, through engaging in profitable joint refining and marketing ventures, with partners who have large access to the major markets.
- Coordinate with OPEC and non-OPEC countries to maintain oil market stability.

- Engage in dialogue with the major consumers to identify the various policies which affect demand for petroleum and related products in these countries.
- Continue exploration operations for non-associated gas with the aim of increasing reserves.
- Rationalize consumption of petroleum products in the domestic market and enhance the efficiency of their utilization.
- Implement staff training programs to enhance their effectiveness and boost the Saudiization process.
- Use medium- and high-salinity ground water in oil production and reduce dependence on fresh water aquifers.
- Improve maintenance systems and methods in refining and distribution facilities, and continue emphasis on protective maintenance programs.
- Work towards producing refined petroleum products that are free from harmful pollutants.
- Provide the opportunity for domestic and international private sectors to participate in the development of the gas industry.

8.2.5.3. Programs

The energy sector programs in the Seventh Plan concentrate on the development of oil facilities, support services, geographical and seismic studies and research, petroleum research and services, and maps and survey information, with the overall aim of developing petroleum resources and improving performance.

8.2.6. Growth Targets

Table 8.4 shows forecasts for domestic consumption of primary energy and the expected average annual growth rates during the Seventh Plan period.

Table 8.4
Domestic Consumption of Primary Energy
during the Seventh Plan
(thousand barrels of crude oil equivalent per day)

	1419/20 (1999)	1424/25 (2004)	Average Annual Growth Rate (%)
- Refined Products*	841.9	974.2	3.0
- Crude Oil for Direct Combustion	237.0	143.0	- 9.6
- Natural Gas	554.0	1083.0	14.3
Total Consumption	1632.9	2200.2	6.1

* *Including lubricants*

8.3. MINERAL RESOURCES SECTOR

8.3.1 Present Conditions

The development and utilization of mineral resources is one of the most promising ways of increasing and diversifying the sources of national income. Accordingly, the Sixth Development Plan aimed to “develop mineral resources and to encourage discovery and utilization thereof”. Implementation of the Sixth Plan’s policies led to the discovery of many mineral prospects and locations which may provide the platform for basic, secondary and complementary mining industries in the future.

The most important achievements of recent years are:

- The Deputy Ministry for Mineral Resources (DMMR) has completed the geological survey maps at 1:500,000 and 1:250,000 scale which cover the Arabian Shield and part of the cover rock. It has also published many detailed geological maps for mineral deposits as well as geophysical and engineering survey maps. The most eminent achievements in the field of surveying and exploration during the Sixth Plan were collecting and tabulating geophysical data and starting to prepare the geophysical Atlas, assessing the seismological hazards of the Aqaba Gulf earthquake in 1415/16 (1995), continuing with seismological monitoring activities, as well as investigating and assessing environmental hazards of the Al-Yutmah location near Madinah.
- Preparation of studies for 11 mining projects proposed for utilization, including the projects of phosphate mining in Al-Jalamid, iron ore in Wadi Sawawin, bauxite in Az-Zabairah, and zinc in Khaniguiyah, as well as 7 feasibility studies about magnesite in Zarghat, zinc and copper in Al-Masan’e and Jabal Sayid, and gold in Al-Amar, Al-Hajar, Hamdhah and Bulghah (Figure 8.1).
- During the Sixth Plan, the DMMR continued to issue various types of mining permits, to monitor investments and to provide technical advice, with the number of mining leases issued by the end of the Sixth plan reaching 17 leases, including 5 non-metallic minerals mining leases, 8 cement raw material leases, and 1 mining lease for copper, zinc and associated metals, as well as 3 leases for precious metals.
- The Saudi Arabian Mining Company (MA’ADEN) was established in 1417/18 (1997) as an autonomous joint stock company fully owned by the state. The company was responsible for exploiting Mahd Ad Dahab and Sukhaybarat mines. MA’ADEN also obtained a mining lease for development of Alamar mine for production of gold and associated metals. This is the first mining lease for the company following its establishment. It also obtained a mining lease to utilize Al-Hajar mine, as well as an exploration license for mineral ores in Wadi Bidah, Samran and Shayban.

Figure (8.1): Locations of Mining Investment Projects

8.3.2. Key Issues

1- Existing Mining Code and International Developments

There is an urgent need to formulate new policies for the mining sector and to amend some provisions of the mining code (issued in 1390), as it lacks the flexibility needed to encourage mining investments. It is also imperative to reconsider some of the incentives granted to investors through the mining code in the fields of mineral exploration and utilization and the financial incentives provided by the government to investment projects. Establishment of mining joint ventures should also be encouraged.

It is noteworthy that intensive efforts are being made to develop foreign investment related regulations, which will undoubtedly contribute towards overcoming these constraints.

2- Infrastructure in Mining Areas

Most of the areas of mining leases are in remote and uninhabited locations in the Kingdom which lack the infrastructure needed for socio-economic development, such as roads, telecommunications, water and electricity, as well as basic services such as education, health etc. Such infrastructure is a vital element in providing appropriate opportunities to utilize economically feasible mineral deposits in these areas. Coordination between relevant agencies is very important if priority is to be given to infrastructure projects in mining areas, consistent with the Seventh Plan priorities to continue to provide infrastructure to meet increasing demand, to develop the various regions and to reduce migration to the major cities.

3- Private Sector Participation in Mining Investments

The private sector's role in mining has been limited to the utilization of non-metallic minerals and raw minerals needed for material manufacturing and non-organic chemical industries, such as cement, glass, ceramics, paints, insulation and building materials. With respect to basic industries, such as heavy industries and other chemical industries which depend on metallic minerals such as iron, copper, lead and zinc, the private sector's role in utilizing these minerals remained limited, despite the availability of many promising mineral deposits which are economically and technically feasible and have been publicized in the local and international markets. The various impediments to private investment in the mining of metallic minerals need continuous review so that appropriate solutions can be found to enable the private sector to invest in the exploitation of promising mineral deposits either directly or through associated and secondary industries. Saudi and foreign private investment should also be encouraged in mining areas through the simplification of licensing procedures, the provision of infrastructure and easy investor access to information and studies, as well as through rule amendments to streamline procedures for obtaining loans from public and private sources of finance. Finally, investors should be provided with information about the feasibility of investing in

these projects through the Chambers of Commerce and Industry, the organization of symposia, direct meetings, and other information media.

4- Qualified Saudi Manpower in the Mining Sector

Mining activity requires a very specific type of staff with both specialized academic qualifications and practical fieldwork experience. The mining sector recognized this fact and used the services of the international consulting houses through geological missions to ensure the ongoing efficiency of mining development and to attract and develop Saudi manpower in this field. Despite the efforts exerted in this regard during the Sixth Development Plan period, more qualified and specialized Saudi professionals and technicians are needed to meet the requirements of the mining sector, through emphasis on training and scholarship programs, encouraging graduates to enter the mining sector and increasing employee incentives.

8.3.3 Production Efficiency

The mining sector accumulated a great deal of information over the course of previous development plans, comprising more than 4,000 reports and specialized studies about the mineral ores (metallic and non-metallic) which supply most of the basic and manufacturing industries, as well as many technical and economic feasibility studies for some promising mining projects which could be developed commercially. Furthermore, an advanced computer system has been established for storage and organization of information that will be important for the expansion of mining investments during the Seventh Development Plan period. In this context, it is imperative to improve the efficiency of the mining sector, to address related issues and problems, and to develop appropriate mechanisms to encourage private investment in mining activities, such as:

- Amending some articles of the existing mining code to keep abreast with international developments and developing the rules regulating mining investment, as well as simplifying the procedures for issuing mining leases and licenses.
- Intensifying the use of advanced technology and ongoing development of information systems.
- Enhancing Saudi geotechnological capabilities and administrative support skills of the sector's staff as well as upgrading their productivity through scholarships and ongoing training.

8.3.4. Role of the Private Sector

The private sector contributed to the development of the mining sector through participation in investment projects and the manufacturing industries which use metallic and industrial ores, as well as participation in the mining lease projects. By the end of the Sixth Development Plan, the Deputy Ministry for Mineral Resources had granted the private sector 16 exploration licenses for metallic and precious minerals, 34 reconnaissance permits for promising mineral prospects, 14 permits for small mines for utilization of industrial minerals and 847 permits for extraction of basic materials used in the

construction industry. However, a more effective private sector role can be achieved through adopting measures to facilitate the issuance of deeds and the financing of mineral projects by local banks.

An integrated strategy is now needed for the development of the mineral resources sector and for addressing related key issues.

8.3.5. Development Strategy

The development strategy of the mineral resources sector will be implemented through the following objectives, policies and programs:

8.3.5.1: Objectives

The major objectives of the mineral resources sector in the Seventh Plan are:

- To expedite geological surveys, update geological and mining data, and assess the various types of mineral ores in the Kingdom.
- To inform investors and encourage them to explore for and utilize available mineral deposits.
- To update economic feasibility studies of promising mineral deposits.
- To develop and upgrade Saudi manpower in the field of mining and enable them to acquire technical, administrative and marketing skills related to mining industries.
- To improve the efficiency of existing mining investments, and provide new investment opportunities in the utilization of minerals.

8.3.5.2 Policies

The objectives of the mineral resources sector will be achieved through adoption of the following policies during the Seventh Plan:

- Assessment of various mineral prospects and mining deposits in the Kingdom by extending the comprehensive inventory and using advanced techniques for collecting, processing and storing data, as well as preparing pre-feasibility studies and continuing to explore for minerals, drilling of the mineralized areas and identifying mining models.
- Enhancing the geological studies and updating relevant data, updating geological maps, conducting marine geological studies along the coasts of the Kingdom, and developing a digital data base compatible with the geographical information system.
- Conducting technical and economic studies for promising mineral deposits and assessing the feasibility of projects in the selected sites.
- Continuing to develop Saudi manpower in the mining related agencies by upgrading their skills through training, scholarships and attending conferences and symposia inside the Kingdom and abroad.
- Developing the organizational structure of the mining sector.

- Enhancing coordination between the mining companies and the related government agencies and encouraging the private sector to enter mining industries and support services.
- Encouraging the establishment of joint ventures by overcoming the constraints impeding the attraction of foreign investments, developing mineral extraction techniques and improving the quality of the products.

8.3.5.3 Programs

The Seventh Development Plan programs of this sector concentrate on surveys and exploration, development of mining investments, mineral exploitation and mining development. These programs aim at investment in developing mineral resources and encouraging their exploitation in order to diversify the sources of income and achieve balanced growth among all regions of the Kingdom.

8.3.6. Growth Targets

The general framework of the mining sector growth targets, during the Seventh Development Plan, comprises the following:

- Offering 11 investment mining projects, for which technical and economic feasibility studies have been finalized, including:
 - * Al-Jalamid phosphate project which is one of the largest deposits worldwide.
 - * 8 projects for metallic deposits (iron, zinc, copper and gold).
 - * 2 projects for non-metallic deposits (bauxite and magnesite).
- Increasing the number of permits and leases for small non-metallic mines by 40 percent during the Seventh Development Plan period and increasing the rate of issuing building materials permits by 10 percent compared to present level, in order to meet local demand.
- Conducting at least 4 technical and economic feasibility studies for mining projects per year and offering them for competitive tender by the private sector.

Figure 8.2 shows the major metallic and non-metallic minerals areas planned for study during the Seventh Plan.

The achievement of these targets during the Seventh Development Plan will enable the Kingdom to enter the actual production stage and to steadily increase the value added and growth of the mining sector. It is expected, during the Seventh Development Plan, to update the data base system and to review some articles of the mining code (particularly those related to deeds and mining taxes) to keep up with global developments, particularly following the issuance of the Council of Ministers' Resolution No. (115) dated 16.7.1420 pertaining to the establishment of the Saudi Geological Surveying Authority reporting to the Ministry of Petroleum and Mineral Resources. This institution has the full autonomy and competence for achieving the geological and mining sector objectives in the Kingdom.

Figure 8.2: Major Areas of Metallic and Non-Metallic Minerals Planned to be Studied during the Seventh Plan

CHAPTER NINE
PRODUCING SECTORS

9. PRODUCING SECTORS

This chapter highlights the achievements made during the Sixth Development Plan in the agriculture, industry, electricity and construction sectors. It also deals with key issues that should be addressed during the Seventh Plan period, economic efficiency and strengthening the private sector's role. Finally, it shows the objectives, policies and programs of these sectors in the Seventh Development Plan.

9.1 AGRICULTURE SECTOR

9.1.1. Present Conditions

The Ministry of Agriculture and Water (MOAW) took several measures during the Sixth Plan period to conserve non-renewable ground water and to ensure balance between water and food security. These measures included gradually reducing the production of cereals, suspending the issuance of licenses for new fodder production projects, enhancing water use rationalization programs, diversifying the production base according to regional comparative advantages and the water requirements of crops, as well as obliging agricultural firms and owners of large scale agricultural projects to install water meters in agricultural wells. Against this background, the agricultural sector achieved an average annual growth rate of 2.2 percent at constant prices of 1414/15 (1994), while its share of non-oil GDP reached 10.4 percent and agricultural employment accounted for 7.8 percent of total employment in the Kingdom.

The major achievements of the agriculture sector during the Sixth Development Plan are as follows:

- The production of wheat and barley fell by 30.7 percent and 75.1 percent respectively in conformity with government policy directions and the Sixth Plan's target to reduce production of these two crops to levels not exceeding domestic consumption. The reduction of total wheat and barley production coincided with the achievement of high yields of 4.7 tons/hectare for wheat and 5.3 tons/hectare for barley.
- High production rates were achieved for some agricultural products largely commensurate with population growth rates, thereby meeting a substantial portion of domestic food demand and successfully implementing the plan's policy to diversify the agricultural base in line with comparative advantages (Table 9.1).

Table 9.1
Production of Selected Food Items during the Sixth Development Plan
(thousand tons)

	1414/15 (1994)	1419/20 (1999)	Increase/Decrease %
Wheat	2646	1834	(30.7)
Barley	2010	500	(75.1)
Red Meat	150	160	6.7
White Meat	361	526	45.7
Eggs	127	139	9.4
Milk	633	866	36.8
Vegetables	2291	2757	20.3
Fruits	988	1244	25.9
Fish	52	56	7.7

Source: MOAW

- The crop pattern changed in response to new developments that emerged during the Sixth Plan period. The cultivated area of wheat, barley and other cereals was reduced by 32.6 percent, 69.9 percent and 34.7 percent respectively. On the other hand, the areas for vegetables and fruits increased by 23.9 percent and 28.8 percent respectively (table 9.2).

Table 9.2
Crop Pattern during the Sixth Development Plan
(thousand hectares)

	1414/15 (1994)		1419/20 (1999)		Increase/Decrease (%)
	Area	(%)	Area	(%)	
Cereals:					
- Wheat	582	44	392	43	(32.6)
- Barley	316	24	95	10	(69.9)
- Others Cereals	173	13	113	12	(34.7)
Total Cereals	1071	81	600	65	(44.0)
Vegetables	134	10	166	18	23.9
Fruits	118	9	152	17	28.8
Total	1323	100	918	100	(30.6)

Source: MOAW

- Veterinary and agricultural extension services continued to be provided, along with the operation of research centers and experiment stations, which contributed to the development of animal production (Table 9.3).

Table 9.3
Livestock in the Sixth Development Plan *
(Thousand Head)

	1414/15 (1994)	1419/20 (1999)**	Increase (%)
Camels	767	806	5.1
Cows	261	309	18.4
Sheep	10170	10718	5.4
Goats	5988	6343	5.9
Poultry	290982	335625	15.3

* *Including animal herds owned by nomads.*

** *MOAW Estimates*

- The Saudi Agricultural Bank continued to grant agricultural loans which reached about SR 2.5 billion during the Sixth Development Plan.
- The Grain Silos and Flour Mills Organization has met the domestic demand for wheat and has a strategic stockpile sufficient to meet contingencies for six months. The production capacity of the flour mills during the last year of the plan 1419/20 (1999) reached about 7,020 tons of wheat per day, an increase of 34 percent on its level at the beginning of the plan. The Organization also contributed to fodder production and partially satisfied demand for this commodity.

9.1.2 Key Issues

1- Demand for Fodder

Overgrazing has adversely affected natural ranges, leading to a decline in the capacity and productivity of such ranges. In 1419/20 (1999), the total number of animal units was estimated at about 4.5 million, while output capacity of these ranges reached 15.2 million tons, or sufficient to feed 1.7 million animal units. The volume of available fodder including barley and other cereals (maize, soya beans, alfalfa and other fodders) reached about 8 million tons of dry items per year, or sufficient to feed 2 million animal units. Thus, the demand for range fodder and dry fodder combined exceeds the available supply by about 18 percent. Consequently, it is imperative to develop range resources through a set of measures aimed at controlling desertification, eliminating random grazing, placing emphasis on green belts for agricultural lands and deserts, as well as restricting the export

of fodder.

2- Consumption of Water Resources for Agricultural Purposes

This issue, common to both the agriculture and water sectors, reflects the steady increase in water consumption -- particularly non-renewable water resources -- for agricultural purposes as a result of agricultural expansion in areas that rely on non-renewable ground water and the tendency of farmers to cultivate fodder with high water requirements.

This issue could be addressed through reducing the areas cultivated by crops with high water requirements, such as green fodder and alfalfa, suspending the distribution of fallow lands except in areas with renewable water resources, expanding the cultivation of agricultural products with lower water requirements and adopting a wide range of effective measures to rationalize water consumption for agricultural purposes. Such measures would include the adoption of advanced irrigation techniques, the determination of water requirements for agricultural products, monitoring water consumption through installation of water-meters on wells, setting a tariff for water exceeding the specified water requirements of crops, utilization of the natural comparative advantages of the various regions regarding redistribution of agricultural products and intensification of agricultural extension programs to ensure awareness of farmers about the significance of water conservation.

3- Agro-industries of Vegetables and Fruits

The past three development plans saw the steady increase in annual growth rates of domestic production of vegetables and fruits which contributed significantly towards meeting demand and reducing the share of imports. However, value added processing of these products is not commensurate with the volume of raw material output and does little to meet the demand for processed food products, as domestic vegetable and fruit processing production (with the exception of dates) does not exceed 10 percent of total demand and results in higher imports.

The three elements of this issue (domestic production, marketing and processing) need to be addressed in an integrated way. Continued adherence to the agricultural calendar is important, as are the regular review of the production incentives system and prices of some agricultural products. Investment should be encouraged in greenhouse projects to produce vegetables that are used as inputs for agro-industries. The efficiency of storage facilities should be enhanced, while agricultural loans should be expanded to include marketing activities and formation of agricultural cooperative societies.

4- Fish Products

The Kingdom has given substantial attention to fish resources as an important source of food security. Consumption by the end of the Sixth Plan 1419/20 (1999) reached about 94,000 tons, of which 56,000 tons (or 59.6 percent of total consumption) are of fresh fish locally produced in traditional and artificial fisheries, with the remainder imported from abroad to bridge the gap in demand for these products. However, demand for fish products is expected to increase to 110,000 tons by the end of the Seventh Plan 1424/25 (2004),

while domestic supply is expected to increase to about 62,000 tons, leading to a bigger gap of about 48,000 tons and higher imports. Addressing these developments will entail providing fishing boats with electronic devices and modern fishing techniques, encouraging the trend towards fish farming and processing, urging investors to set up artificial fisheries on the Red Sea and the Arabian Gulf, increasing the Agricultural Bank's loans for these purposes and dedicating efforts towards solving problems facing fishermen.

9.1.3. Productivity

The adoption of modern technologies in large-scale agricultural projects and the private sector's involvement in production and marketing have led to a steady improvement in the productivity of the agriculture sector during the Sixth Plan period. However, the need still persists for a series of measures to enhance the efficiency of this sector, such as the continuous review of agricultural policies related to the transfer, endogenization and utilization of technology, improving the effectiveness of agricultural extension programs and coordination with research agencies on conducting applied research which supports the optimal utilization of such technologies.

9.1.4. Role of the Private Sector

The government will continue to encourage the private sector to engage in agricultural development activities, particularly investment in marketing and agro-industries. Government agencies in the agriculture sector will provide their services to enhance the private sector's capabilities through a set of programs including agricultural research, services and extension, credit facilities and facilitating the transfer and adoption of appropriate technologies.

9.1.5. Development Strategy

During the Seventh Plan, increased domestic demand for food is expected to continue as a result of population growth and steady improvements in living standards. Accordingly, it is imperative to develop the agriculture sector, conserve critical water resources and achieve a balance between water and food security.

The development strategy of the agriculture sector during the Seventh Plan will be implemented through the following objectives, policies and programs:

9.1.5.1. Objectives

The main objectives of the agriculture sector during the Seventh Plan are as follows:

- Enhancing agriculture's contribution to the diversification of income sources and expansion of the productive base.
- Emphasizing the rational utilization and conservation of natural resources.
- Upgrading the economic efficiency of the agriculture sector.
- Contribution towards raising income levels and improving the standard of living for citizens in rural areas.

9.1.5.2. Policies

The main objectives of the agriculture sector during the Seventh Plan will be achieved through adoption of the following policies:

- Provide some agricultural inputs and support services to farmers and ensure an adequate climate for the private sector to continue producing and processing agricultural products, and adopt modern technology to reduce costs of production.
- Increase local production of fruits and vegetables in greenhouses and encourage adoption of modern cultivation and irrigation techniques.
- Raise the efficiency of research, technical and agricultural extension institutions, and enhance coordination with implementing agencies.
- Upgrade the efficiency of producing projects through supporting technical studies and research, as well as the application of modern technologies.
- Improve the marketing of vegetables and fruits, particularly for small producers.
- Enforce the conditions and criteria related to the use of reclaimed wastewater and agricultural drainage water for agricultural purposes.
- Develop and upgrade Saudi manpower in the agricultural sector.
- Provide adequate storage capacities of silos and warehouses for various types of grain in line with domestic consumption needs.
- Increase the production capacity of the flour mills in line with the expected increase of demand for flour products.
- Provide agricultural loans in line with agricultural policy and the need to balance disbursements with loan repayments.
- Contribute to realization of ecological equilibrium through the conservation of natural resources, control of desertification, conservation and development of forests, provision of adequate protection conducive to reproduction of animal and plant species, in addition to protection of the marine environment and the conservation and development of fish resources.
- Prepare the agricultural sector to deal in a flexible and efficient manner with local, regional and international developments.

9.1.5.3. Programs

The programs of the agriculture sector emphasize the development of agricultural services and fish resources, technical cooperation and transfer of technology with the aim of providing various agricultural services, enhancing fish resources and ensuring transfer of technical expertise and advanced technology in collaboration with international and regional organizations as well as bilateral cooperation committees. The programs of this sector also stress the continuing modernization and equipment replacement tasks of the grain silos, flour mills and animal feed factories as well as providing loans necessary for securing agricultural equipment, along with continuing to meet the demand for flour.

These programs also emphasize the development of manpower in the agriculture sector and upgrading their efficiency through training, particularly in advanced technologies and modern agricultural techniques.

9.1.6. Growth Targets

The value added of the agriculture sector is expected to increase during the Seventh Plan from SR 34.67 billion in 1419/20 (1999) to SR 40.28 billion in 1424/25 (2004) at constant prices of 1414/15 (1994), or at an average annual growth rate of 3.05 percent.

Table 9.4 shows the estimated demand for main food items, the total demand for which is expected to increase at an average annual rate of 3.2 percent.

Table 9.4
Demand for Main Food Items during the Seventh Plan
(thousand tons)

Description	1419/1420 (1999)	1424/1425 (2004)
Wheat	1834	2147
Red Meat	370	433
White Meat	682	798
Eggs	122	143
Milk*	823	963
Vegetables	3361	3934
Fruits	1931	2260
Fish	94	110

* *Fresh Milk.*

Table 9.5 shows expected changes in the production of the main food items during the plan period.

Table 9.5
Production of Main Food Items during the Seventh Plan
(thousand tons)

Description	Production (thousand tons)		Average Annual Growth Rate (%)
	1419/20 (1999)	1424/25 (2004)	
Red Meat	160	168	1.0
White Meat	526	773	8.0
Eggs	139	161	3.0
Milk	866	1004	3.0
Vegetables	2757	3196	3.0
Fruits	1244	1514	4.0
Fish	56	62	2.0

Domestic agriculture production is expected to meet a significant share of the growing demand for food items over the Seventh Development Plan period. Production of eggs and milk will exceed the volume of demand, thus leading to a surplus available for export. On the other hand, imports of red and white meat, vegetables, fruit and fish are expected to continue due to demand growing faster than domestic production.

By the end of the Seventh Development Plan, wheat production is not expected to exceed domestic consumption estimated at 2.1 million tons per year. Barley will continue to be imported by the private sector.

9.2 INDUSTRY SECTOR

9.2.1 Present Conditions

The Ministry of Industry and Electricity is responsible for developing the industrial sector through its supervisory, regulatory and executive tasks, while the Royal Commission for Jubail & Yanbu, the Saudi Industrial Development Fund and the Saudi Consulting House provide support for the Ministry in the implementation of industrial development policies and programs. The industrial sector made significant progress over the Sixth Development Plan period, as its contribution to non-oil GDP reached 13.9 percent by the end of the plan period. The petrochemicals industry contributed 9.9 percent of industrial GDP, the oil refining industry 37.8 percent and other manufacturing industries 52.3 percent.

During the Sixth Development Plan, SABIC implemented major expansions in its projects leading to the addition of about 5.5 million tons to its production capacity of petrochemicals, fertilizers and minerals, thus bringing its total production capacity to more than 25 million tons per year, an increase of 28 percent compared to the beginning of the Sixth Development Plan. Total capacity of SABIC is expected to reach more than 35 million tons on completion of the remaining expansion projects in 1420/21 (2000). SABIC also established a new project for the production of steel sheets with an annual production capacity of 850,000 tons.

In the case of manufacturing industries, the number of operating factories by the end of 1419/20 (1999) reached about 3,123 with total investments of about SR 230 billion and total employment of 287,600 workers as shown in Table 9.6. The number of new operational factories during the plan period reached 476 with an investment value of about SR 14.5 billion.

Table 9.6
Operating Factories* by Type of Activity
1419/20 (1999)

Industrial Activity	Number of Factories	Total Finance (SR million)	Employment (Thousand)
Foodstuffs	497	16446	40.1
Textile and ready made clothes	135	3015	16.8
Wood and Wood products	135	2093	11.8
Paper, printing and publishing	187	4998	14.6
Chemicals and petroleum	643	150553	68.5
Non-metallic industries	560	25370	51.7
Base metallic industries	74	5709	9.3
Machineries and equipment	814	20736	69.0
Other industries	56	1081	5.1
Cold stores	22	262	0.7
Total	3123	230263	287.6

Source: MIE

** National and joint venture factories.*

The value of industrial exports (excluding oil refining) in the fourth year of the Sixth Plan 1418/19 (1998) reached about SR 35.03 billion at current prices, a rise of 109 percent compared to the level before the beginning of the Sixth Plan, of which petrochemicals accounted for 34 percent and other manufacturing industries for 66 percent. The value of industrial exports (excluding oil refining) is expected to reach SR 39.83 billion in the last year of the Sixth Plan.

SIDF provided about SR 8 billion in industrial loans for 271 industrial projects in the first four years of the Sixth Plan, while about 340 industrial projects are expected to benefit from these loans by the end of the plan. Moreover, commercial bank loans to manufacturing industries increased from SR 12.88 billion by the end of the Fifth Plan to SR. 21.45 billion by the end of the fourth year of the Sixth Plan 1418/19 (1998), an increase of 66.5 percent.

By the end of the Sixth Plan, the number of operating factories in Jubail and Yanbu industrial cities reached 23 for basic industries, 26 for secondary industries and 132 for light and supporting industries, increases of 9 percent, 116 percent and 18 percent respectively compared to the beginning of the Sixth Plan. In addition, the 8 industrial cities established in Riyadh, Jeddah, Dammam, Makkah, Qassim and Al Hassa now have a total

developed area of about 41 million square meters, an increase of 28 percent compared to the beginning of the Sixth Development Plan. The area occupied by industrial projects accounted for 95 percent of the total developed area. Work also commenced on the development of 4 new industrial cities in Al Madinah, Assir, Jouf and Tabuk. The Ministry of Industry and Electricity is studying possible private sector participation in the establishment of new industrial cities to meet the growing demand for industrial space.

Within the context of the Offset Program, eight agreements have been concluded with the French government, the British government and some major international companies. These agreements resulted in the formation of 15 companies in the fields of aviation, electronics, telecommunications and other high technology industries. The total capital invested in these companies reached SR 2,677 million by the end of the Sixth Development Plan, an increase of SR 242 million from the end of the Fifth Development Plan.

In the context of enhancing the private sector's contribution to the national economy, including the privatization of some activities undertaken by government agencies responsible for industrial development, the Council of Ministers' Resolution No. 57 dated 28.3.1420 has decreed the establishment of a Saudi Joint Stock Company for Services at Jubail and Yanbu industrial cities.

The industrial sector faces some key issues which should be addressed during the Seventh Plan period in order to support the process of industrial development and ensure a greater contribution of the industrial sector to GDP.

9.2.2 Key Issues

1- Trained Saudi Manpower

Notwithstanding the progress in Saudiization achieved by the petrochemical and oil refining industries, the rate of Saudiization remains lower in other manufacturing industries which still depend on non-Saudi manpower to a great extent, due to the insufficient supply of national industrial skills and lower wages of non-Saudis.

Addressing this situation requires some measures aimed at expanding and upgrading industrial education and making it more attractive to Saudi youths, along with training and encouraging Saudi manpower to join national industrial factories while providing incentives for private factories with high rates of national manpower and which are implementing programs for training and upgrading the skills of such manpower. Moreover, measures have to be adopted that aim at encouraging private sector investment in training and providing credit facilities for training purposes.

2- Incentives for Small Industries

Small industries account for a substantial proportion of total industries in the Kingdom, and are a major provider of job opportunities for Saudi nationals and supplier of products to large industries. However, small industries do not enjoy the same incentives provided by the government to large industrial projects and there are no specialized institutions or

agencies dealing with their affairs. Small industries also have difficulties in obtaining finance for their activities and need to use modern management and accounting systems in running their businesses.

Against this background, further encouragement of small industries will be needed in the coming phase through studying the establishment of prefabricated buildings in industrial cities, providing these buildings with necessary services and infrastructure, and leasing them to small investors. The Chambers of Commerce and Industry, in collaboration with private establishments and commercial banks, could also assist small investors through shouldering the costs of feasibility studies, as well as the establishment of special sections in commercial banks for financing these investors, and establishing special companies as incubator institutions to contribute capital to small industrial projects and implement technical assistance and consultation programs.

3- Incentives

Government incentives for encouraging businessmen to invest in industrial projects include the granting of land, customs exemption on imported production inputs, easy-term loans and exemption from corporate taxes. In order for these incentives to be effective under prevailing global conditions, particularly the Kingdom's forthcoming accession to the WTO, it is imperative to carry out a comprehensive review of the incentives system to ensure its conformity with international standards. It is also important to accord high priority to the projects that foster economic integration and have forward and backward linkages with existing industries, particularly petrochemicals, and to provide incentives to industries characterized by comparative advantages, high quality products and the use of advanced technology. Incentives should also be directed towards attracting investment to areas with industrial development potential.

4- Industrial Exports Development

Notwithstanding the Kingdom's growing exports of petrochemicals, refined oil products and other industrial products, the value of manufacturing exports still account for a small portion of the Kingdom's total exports, or about 36 percent by the end of the Sixth Plan, due to several constraints.

New initiatives are now needed, such as: the establishment of companies specialized in export promotion methods; considering the possibility of turning the Export Development Center at the Council of Chambers of Commerce and Industry into an independent self-financed agency that provides its services to exporting companies and supports financing activities for industrial exports; using modern electronic trade; increasing the penetration of export markets through intensive participation in international fairs; and promoting awareness amongst factory owners of the impacts of the Kingdom joining the WTO in terms of relevant procedures, requirements and advantages.

5- Industrial Pollution

The use of some technologies often increases air and water pollution due to gaseous emissions and industrial waste, particularly where environmental regulations are either

absent or lack appropriate implementation mechanisms and measures. To avoid the risks of industrial pollution in the long-term, environmental protection measures must be continued, such as the selection of non-polluting technologies identified in industrial feasibility studies, ensuring industrial projects have the equipment needed to treat industrial waste prior to licensing being granted, emphasizing material recycling projects and addressing the adverse environmental impacts of existing industries.

6- Foreign Investments

The share of foreign investments in industrial projects declined during the last years of the Sixth Plan. The percentage of licenses issued for joint ventures did not exceed 5 percent of total licenses issued during this period, while the invested capital associated with these licenses accounted for 5.4 percent of the total capital invested under all licenses issued. The constraints facing joint venture industrial projects should be addressed through new investment regulations and appropriate measures to overcome the obstacles impeding the attraction of local and foreign investment. In this context, the Ministry of Industry and Electricity has developed a new foreign capital investment draft law aimed at ensuring adequate conditions for attracting foreign investments, the facilitation of management procedures necessary for implementing investment projects, as well as the provision of preferential incentives for projects that realize the objectives of industrial development.

9.2.3. Production Efficiency

The land utilization rate in the existing industrial cities was high during the Sixth Development Plan, particularly in Riyadh, Jeddah and Dammam (95 percent of total area allocated for factories). Moreover, capacity utilization of services and utilities in Jubail and Yanbu industrial cities also increased substantially.

9.2.4 Role of the Private Sector

Industrial licenses issued by the Ministry of Industry and Electricity show the growth in industrial investment by the private sector, as more than 2,400 licenses were issued for the establishment of industrial projects during the first four years of the Sixth Plan, with an investment value of SR 58.2 billion. Furthermore, the private sector is actively involved at the twin industrial cities of Jubail and Yanbu in the construction and management of educational facilities such as kindergartens and schools, health facilities and residential and commercial buildings. The Ministry of Industry and Electricity is currently considering private sector participation in the construction, operation and maintenance of industrial cities, along with the provision of infrastructure.

The next stage of development will see the emergence of new investment opportunities for the private sector in industries that depend on domestic mineral resources, as well as in oil refining and the gas industry. There will also be opportunities in capital goods industries that now constitute a high percentage of imports, such as the manufacturing of equipment and machinery, and in small industries that supply existing large industries with spare parts, semi-processed materials and complementary parts.

9.2.5 Development Strategy

The development strategy of the industrial sector aims to achieve industrial growth and expansion characterized by competitiveness in the domestic market and growing penetration of global markets.

9.2.5.1 Objectives

The major objectives of the industrial sector during the Seventh Development Plan period are:

- To enhance the contribution of the industrial sector in GDP and in diversifying the economic base.
- To achieve further integration and linkages between activities in the industrial sector and other economic sectors.
- To achieve balanced industrial development among the Kingdom's regions in conformity with the geographical distribution of natural and human resources as well as the availability of growth factors.
- To enhance the share of industrial exports in total exports.
- To establish more industrial joint venture projects between the Kingdom, GCC countries, Arab and Islamic states.
- To raise productivity and enhance competitiveness.
- To provide more job opportunities for Saudis and encourage domestic industries to replace non-Saudi manpower with Saudis.
- To place emphasis on the environmental dimension of industrial development and ensure the commitment of existing and new industries to the environmental protection criteria, and to ensure that imported technology avoids the hazards of environmental pollution, and to rationalize the use of critical natural resources.

9.2.5.2 Policies

The major objectives of the industrial sector during the Seventh Development Plan will be achieved through the following policies:

- Promote horizontal and vertical expansion in petrochemical industries, and in oil and gas derivatives.
- Conduct more studies on investment opportunities and feasibility studies for projects, and acquaint investors with the results of these studies.
- Enable the private sector to invest in the oil refining and gas industries, and encourage the establishment of joint ventures in this field.
- Continue to provide more industrial information and update statistical data through carrying out regular industrial surveys.
- Develop regulations and rules necessary for encouraging small industries, and study the means for financing and developing such industries as well as solving particular problems.

- Expand the establishment of industrial cities in locations with favorable industrial growth potential, and ensure private sector participation in their construction, operation and maintenance.
- Study market conditions and competition, encourage marketing activities, research and advertising, and develop means of exporting domestic products.
- Attract further foreign investment and modern technology, and develop the foreign capital investment law.
- Enhance and support research and development activities in the industrial establishments of the private sector.
- Improve the utilization of production capacities and upgrade economic efficiency standards in industrial establishments.
- Encourage national factories to prepare and develop training programs for national manpower and support factories with high rates of Saudiization.
- Protect the environment against industrial pollution, and verify that production tools in use limits the use of critical resources.

9.2.5.3 Programs

The programs of the industrial sector during the Seventh Development Plan concentrate on ensuring accelerated industrial development, increasing industrial investment opportunities, encouraging private (national and foreign) investments and expanding the provision of technical consultation and services. The programs of the sector also stress the conduct of studies and industrial surveys to acquaint investors with available investment opportunities in the industrial sector, as well as the development of regulations related to the attraction of foreign investment, streamlining procedures, expansion of existing industrial cities and establishment of new ones, and more training of national manpower with the aim of improving productivity.

9.2.6. Growth Targets

The industrial sector is expected to grow at an average annual rate of 5.14 percent during the Seventh Plan period, the petrochemicals industries at 8.29 percent, the oil refining industry at 1.05 percent and other manufacturing industries at 7.16 percent in constant prices of 1414/15 (1994).

The following achievements are expected during the Seventh Development Plan period:

- About 3,000 industrial licenses will be issued for establishing new industrial projects (national and joint venture) with an investment value of about SR 60 billion.
- About 150 industrial licenses will be issued for joint ventures with foreign investors, with an investment value of about SR 6.5 billion.
- About 693 factories will enter the production stage with an investment value of about SR 18 billion.

9.3 ELECTRICITY SECTOR

9.3.1. Present Conditions

The electricity sector achieved positive growth rates during the period 1414/15 - 1418/19 (1994-1998) of the Sixth Development Plan. Electricity was provided to about 441,100 additional customers, with the number of customers growing at an average annual rate of 3.7 percent. Electricity consumption increased at an average annual rate of 4.2 percent, while the peak load grew at an average annual rate of 2.7 percent as shown in Table 9.7.

The electricity sector faces some constraints which should be addressed through the restructuring and financial reforms approved by the Council of Ministers' resolution # 169 dated 11-8-1419.

Table 9.7
Major Indicators of the Electricity Sector
during the Sixth Development Plan

	1414/1415 (1994)	Actual 1418/19 (1998)	Estimate 1419/20 1999	Average Annual Growth Rate (%) 1414/15-1418/19 (1994-1998)
Average annual consumption per residential customer (kwh)	34581.7	35938.5	36819.5	0.97
Average peak load per customer (kw)	6.2	5.9	6.4	(1.2)
Total annual consumption (million kwh)	82198.1	97050.0	104535.7	4.2
Peak load (mw)	17387.0	19326.0	21926.7	2.7
Customers (,000)	2815.5	3256.6	3432.0	3.7
Total number of employees	27011	27910	28531	0.8
Share of Saudis (%)	60.3	67.6	69.1	2.9
Average number of customers per employee	104	117	120	3.0
Average sold electricity per employee (mwh)	3043	3477	3664	3.4

Source: Ministry of Industry and Electricity.

9.3.2 Key Issues

1- Financial Position

Electricity companies are suffering from high levels of debts, with operating losses resulting from electricity prices that are lower than production costs on the one hand, and low rates of revenue collection on the other. This condition has limited the ability of the electricity companies to finance their capital programs, particularly in drawing on the capital markets for their investment needs. The correction of this situation is one of the objectives of re-structuring the electricity sector.

2- Service Coverage

The objective of providing electricity to all customers is considered a major development priority. There have been substantial achievements in this respect, as reflected in the number of new customers provided with service during the Sixth Development Plan period. However, available resources do not meet the growing demand for electricity service, a matter that should be addressed in order to ensure overall service coverage.

3- Productivity and Cost of Service

Although the Sixth Development Plan period saw positive progress in labor productivity, the cost of service did not keep pace with this improvement in labor productivity. This is attributed to delays in the implementation of some network inter-connections, and to some operational constraints, which are thought to be among the main reasons behind slowing cost improvements. This situation is expected to improve following the development of the electricity system, the introduction of competition in the generation sector and enhancing the monitoring and regulatory tasks. These issues will receive substantial attention in restructuring the sector.

9.3.3 Productivity

Labor productivity continued to improve during the Sixth Development Plan period. The number of customers per employee grew at an average rate of 3 percent from 104 customers in 1414/15 (1994) to 117 customers in 1418/19 (1998), while the average electricity sold per employee grew at an annual rate of 3.4 percent from 3,043 Mwh to 3,477 Mwh during the same period. This development has been accompanied by a decline in the cost of service.

The electricity sector is expected to witness tangible improvements in productivity as a result of the current restructuring and financial reforms.

9.3.4 Role of the Private Sector

The objective of strengthening the private sector's role is considered as one of the main objectives of the restructuring process decreed by the Council of Ministers' resolution 169 (dated 11.8.1419) which encompasses the following major aspects:

- Establishment of a joint stock electricity company at the national level named "The Saudi Electricity Company".

- Consolidation of all local operating electricity companies as well as the electricity projects operated by the General Electricity Corporation into the Saudi Electricity Company, while abiding by the following provisions:
 - * Implementing an appropriate organizational structure through which to ensure that services are provided in line with approved technical criteria and at minimum cost.
 - * Enabling the private sector to compete in the establishment and management of electric power projects in the Kingdom.
 - * The Saudi Electricity Company may establish or own subsidiaries operating in electricity generation, transmission or distribution sectors. The company may also establish other companies or joint ventures with Saudi or foreign companies or corporations undertaking similar tasks, or those which may assist it in realizing its objectives.
- The establishment of an independent agency responsible for the review of costs and tariffs which shall undertake periodical reviews of service cost and electricity prices.
- Implementing financial reforms.

9.3.5 Development Strategy

The development strategy in the electricity sector will be implemented through the following objectives, policies and programs:

9.3.5.1 Objectives

The major objectives of the electricity sector during the Seventh Development Plan are:

- The provision of electricity service of a suitable quality to all population settlements.
- Full electricity service coverage throughout the Kingdom.
- Utilization of electric energy in the diversification of the Kingdom's economy.
- Implementation of regional interconnections and enhancement of integration in this field with neighboring countries.

9.3.5.2 Policies

The major objectives of the electricity sector during the Seventh Plan will be achieved through the following policies:

- Development of electricity systems and management of demand for electric power.
- Encouragement of electricity conservation and rationalization of consumption.
- Management of loads to ensure optimal utilization of electricity systems and infrastructure.
- Enforcement of measures aimed at inducing the use of thermal insulation.
- Development and enforcement of standards of efficiency for heating, ventilation and air-conditioning systems.
- Development of manpower training programs with the aim of upgrading productivity and boosting the Saudiization process.

- Promotion of cooperation at the Gulf, Arab and regional levels in the electricity field with the aim of realizing an interconnected power network.

9.3.5.3 Programs

The programs of the electricity sector aim at the development of electricity generation, transmission and distribution capacities as well as communication and control systems and administrative development to ensure availability of the capacities necessary to meet the expected growth in electric loads. These programs also aim at boosting and expanding transmission and distribution networks as well as providing facilities and systems related to dispatch, distribution, monitoring and control functions, manpower development and the development of support services.

9.3.6 Growth Targets

During the Seventh Plan, electricity service is expected to be provided to 793,000 new customers. Average consumption per residential customer is expected to grow at an average annual rate of 1.2 percent from 36,820 kwh in 1419/20 (1999) to 39,116 kwh in 1424/25 (2004). Total electricity consumption is expected to grow at an average annual rate of 5.2 percent from 104,536 million kwh to 134,707 million kwh during the same period. Furthermore, the non-coincident peak load in the Kingdom is expected to grow at an average annual rate of 5.1 percent from 21,927 mw in 1419/20 (1999) to 28,146 mw in 1424/25 (2004). Table 9.8 shows the expectations for the major electricity sector indicators during the Seventh Plan period.

Table 9.8
Major Indicators of the Electricity Sector in the
Seventh Development Plan

	1419/20 (1999)	(1424/25 (2004)	Average Annual Growth Rate (%)
Average total consumption per residential customer (Kwh)	36819.5	39116.1	1.2
Average peak load per customer (Kw)	6.4	6.7	0.9
Total power consumption (million Kwh)*	104535.7	134706.8	5.2
Peak load (MW)	21926.7	28146.2	5.1
Total number of customers (thousand)	3432.0	4225.0	4.2
Employment (thousand)	28531	31858	2.2
Ratio of Saudis (percent)	69.1	79.2	2.8
Average number of customers per employee	120	133	2.1
Average sold electricity per employee (MWH)	3663.9	4228.4	2.9

* Consumed electricity includes power imported from dual purpose desalination plants the estimated firm export capacity of which is expected to reach 3734 mw in 1424/25 (2004).

9.4 CONSTRUCTION SECTOR

9.4.1 Present Conditions

The construction sector, with its public and private activities in the fields of housing, infrastructure, public utilities and services, and industrial establishments, is a significant sector of the national economy due to its unique linkages with the other producing sectors.

During the Sixth Development Plan period, construction activity has been stable despite the decline in the number of building permits issued to about 50 percent of their level in the Fifth Development Plan. The construction sector's contribution to GDP grew at an average annual rate of 2.16 percent over the Sixth Development Plan period and its share of non-oil GDP reached 16 percent by the end of the plan. Moreover, the manufacture of building materials continued to develop over this period with the number of building materials, ceramics and glass factories exceeding 560 factories, or 18 percent of the total number of operating factories in the Kingdom, thus leading to surplus production and exports of certain types of building materials.

The Real Estate Development Fund (REDF) granted 27,800 real estate loans amounting to SR 8,644 million for financing the construction of housing units for utilities during the Sixth Development Plan.

The Deputy Ministry for Public Works (DMPW) supervised the construction of 336 public building projects for a number of government agencies and designed 371 preliminary, final and complementary projects for some government agencies. The DMPW's laboratories also carried out about 10,000 building materials and soil tests during the Sixth Development Plan and provided consulting services for about 557 government and private buildings where cracks had appeared.

The General Administration of the Mina development project at the Ministry of Public Works and Housing implemented and supervised several projects during the Sixth Development Plan, with the aim of facilitating the performance of Hajj rites such as the pilgrims' housing project, roads, tunnels and pedestrian passageway projects, construction of toilets, the expansion of the Jamarat area and stabilization of rocks.

The construction sector faces several key issues which should be addressed to enable the sector to continue to play its vital role in the Kingdom's socio-economic development process.

9.4.2 Key Issues

1. Manpower

The number of Saudi workers in the construction sector is still low and is concentrated in professional jobs. This is attributable to a number of factors, which impede the attraction of Saudis to this sector. Measures should therefore be taken to address the issue of job stability in the construction sector. It is also imperative to expand training programs, for

those seeking employment in this sector, at the technical education and vocational training institutes as well as the technical colleges, and to encourage the private sector to employ and train Saudi manpower.

2. Technical and Administrative Capacities

Despite the steadily improving performance of Saudi construction companies, performance is still unsatisfactory in small and medium scale companies. Criteria for granting licenses need to be reviewed so that companies granted such licenses would have a professional background and are capable of adequately implementing projects. The application of the contractors' classification system in accordance with their capabilities and qualifications has contributed to achieving substantial progress in this direction. However, the fifth category in the classification which comprises the majority of small and medium-scale contractors, still accounts for the highest share. These contractors need to be supported to develop in their fields of specializations and in accordance with their classification.

In order to support small and medium companies operating in the sector, the following steps may be taken:

- * Providing consulting services to support small and medium companies in technical, managerial and legal areas, while encouraging specialization.
- * Obliging large companies to sub-contract work to local specialized small companies.

3. Constraints of Finance

Saudi contractors face constraints in financing their business activities due to the reluctance of banks to provide them with sufficient loans. This leads to a continuous shortage of capital needed to finance preliminary investment activities following the award of contracts, such as insurance, procuring supplies, hiring labor and other relevant expenses. Measures are needed to address this issue, including the following:

- Reviewing the procedures for awarding contracts;
- Encouraging the banks to facilitate lending and to insure against its risks;
- Reviewing the system of granting licenses to contractors to ensure that the process is based on highly professional and specialized criteria.

4. Information Base

The multiplicity of agencies collecting data and the lack of coordination among these agencies have limited the linkages and integration needed to establish a reliable database, resulting in a lack of regular information. This, in turn, has limited the process of establishing small and medium scale businesses providing services to the construction industry. To address this issue, it is suggested to:

- Establish a detailed and comprehensive database covering all construction related activities.

- To consolidate the supervision of data bases into a single agency responsible for the regular updating and development of data in collaboration with other construction-related agencies, and to confirm the Sixth Development Plan's policy of assigning the regulation of these tasks to the Central Office for Construction at the Deputy Ministry for Public Works.

9.4.3 Productivity

Statistics indicate that a growing number of contractors and companies are operating in the construction sector. However, there has been no tangible improvement in technical and administrative performance due to the large number of small and medium scale companies with limited capacities and a shortage of companies providing specialized construction services.

New criteria for the contractor classification process will add qualitative support to enhance the economic efficiency of this sector, which will also be assisted by updating the general specifications of buildings undertaken by the DMPW in collaboration with SASO (which contributed to the preparation of the Saudi Building Code), and the study of various construction techniques and real estate market conditions in various major urban areas in coordination with King Saud University. These measures are expected to positively reflect upon the productive efficiency of the construction sector.

9.4.4 Role of the Private Sector

The private sector implements construction projects which are financed by the private sector or by the government, and produces building materials and undertakes operation and maintenance works. Despite the decline in government construction-related investment, private investment in the construction of residential, commercial, industrial and social facilities has grown steadily.

The Seventh Development Plan aims to enhance the role of the private sector in the development of the construction sector through the implementation of several construction and operation projects and through participation in financing and leasing facilities to some government agencies with ownership transferring to the state after a specific period. It is also planned during the Seventh Development Plan period to boost the role of the specialized credit institutions and commercial banks in providing adequate credit facilities.

9.4.5 Development Strategy

The development strategy of the construction sector will be implemented through the following objectives, policies and programs:

9.4.5.1 Objectives

The major objectives of the construction sector during the Seventh Development Plan are as follows:

- To develop national manpower and to raise Saudiization rates.
- To expand the building materials industry in order to meet the needs of the local market and export surpluses to neighboring markets.
- To develop small and medium-scale construction establishments and to facilitate the provision of appropriate financing.
- To establish a database for the construction sector to be upgraded regularly, and to assign responsibility for this database to a single agency.
- To enhance efficiency and quality in all activities of the sector.

9.4.5.2 Policies

The major objectives of the construction sector will be implemented through the following policies in the Seventh Development Plan:

- Enhancing labor efficiency in accordance with the sector's development requirements.
- Encouraging private sector expansion in the building materials industry, enhancing current production capacity and producing new materials.
- Supporting small and medium scale firms at the early stages of their establishment.
- Upgrading the standards of data collection, studies and applied research.
- Developing practices and systems for the implementation, management and supervision of projects, as well as upgrading laboratory testing.

9.4.5.3 Programs

The programs of this sector during the Seventh Development Plan emphasize the development of manpower, preparation of more studies, technical cooperation, the construction of facilities and laboratories, in order to provide technical support to the Ministry of Public Works and Housing (MOPWH) in the implementation of its tasks. These programs also stress the completion of development projects at Mina and the Holy places.

9.4.6 Growth Targets

The construction sector is expected to grow at an average annual rate of 6.17 percent during the Seventh Development Plan period, while its share of total employment is expected to increase. A sufficient number of commercial buildings and shopping centers is expected to be available. In addition, the following targets are expected to be achieved during the Plan period:

- Increasing the rate of Saudiization in this sector by enhancing the absorptive capacity and quality of technical institutes and colleges, as well as expanding the private sector's participation in this respect.
- Increasing the domestic market share of national building materials products to 100 percent for basic materials and to 50 percent for other materials.

- Expanding the activities of executive agencies that provide support for small and medium-scale establishments.
- Establishing a database for this sector by the Deputy Ministry of Public Works in coordination with other related agencies.
- Upgrading the quality of building materials, improving the implementation, management and supervision methods of projects, as well as conducting appropriate laboratory tests.

CHAPTER TEN
SERVICES SECTOR

10. SERVICES SECTOR

This chapter highlights the achievements of the Sixth Plan in the trade, tourism, standards and specifications, and statistical services sectors. It discusses the key issues to be addressed during the Seventh Plan, economic efficiency and strengthening the role of the private sector. The chapter also presents the objectives, policies and programs of these sectors during the Seventh Plan period.

10.1 TRADE SECTOR

10.1.1 Present Conditions

The trade sector plays a vital role in developing the sources of national income and meeting the needs of citizens for goods and services, as well as in providing job opportunities.

The trade sector includes a vast number of individual-owned firms that are recorded in the commercial register and that undertake trading activities freely within the institutional framework and the regulatory rules of the sector. The Ministry of Commerce is the main agency entrusted with the responsibility for this sector including directing and organizing the domestic and foreign non-oil trade activities. It also supervises the process of the Kingdom's entry into the WTO, the work of the National Committee for Trade Finance and the Permanent Committee for Trade and Economic Cooperation with Islamic Countries, as well as chairing the Saudi side in joint economic, trade and technical committees with other countries.

On the other hand, the chambers of commerce and industry represent the interests of companies and establishments operating in this sector.

The major achievements during the Sixth Plan were:

- Value added by this sector increased from SR 32.98 billion in 1414/15 (1994) to SR 35.89 billion in 1419/20 (1999), growing at an average annual rate of 1.7 percent during the Sixth Plan period measured at constant prices of 1414/15 (1994). The sector also succeeded in securing the basic needs of citizens for foodstuffs and supplies without bottlenecks or inflationary pressures.
- About 357,000 certificates of origin for exports of Saudi products were issued up to the end of 1418/19 (1998).
- Quality control laboratories have been developed, modernized and supplied with equipment and radiation detection units. Locally produced and imported goods were tested and analyzed and their validity and quality checked to ensure consistency with Saudi standards and specifications. Prices were monitored to ensure their fairness.

- A number of regulations were issued, including the commercial registration regulation and its by-laws, the bankruptcy protection settlement regulation, the trade names regulation, and the regulation to enforce commercial registration. The following draft regulations were submitted for approval: installment sales regulation, trade data regulation, trade mortgage regulation, and the public warehouses deposit regulation. The following were also published: the trade agencies manual, a comprehensive trade manual, a statistical directory of the Ministry's activities, while the preparation of the professional services offices directory has been started, including the classification of consulting bureaus.
- The number of registrations and licenses issued for major trade services are shown in Table 10.1.

Table 10.1
Development of Some Major Trade Services
during the Sixth Plan Period

Description	Total in 1414/15 (1994)	Total in 1418/19 (1998)	Increase %	Expected in 1419/20 (1999)
- Existing registrations of companies and establishments	400343	476148	18.9	496518
- Trade Agencies	4888	6326	29.4	6447
- Trade Marks	32296	44462	37.7	44562
- Hotels and Rest Houses	287	374	30.3	381
- Professional Services Offices	2719	3481	28.0	3545
- Automatic/Semi-Automatic Bakeries	553	730	32.0	737
- Gold and Jewelry Shops and Workshops	3682	4694	27.5	4741

- Coordination with the Chambers of Commerce and Industry in the organization of many training courses and studies about foreign markets and marketing investment opportunities.
- Issuance of the Council of Ministers Resolution # 109 dated 26/7/1416, regarding the Kingdom's accession to the WTO and formation of an inter-ministerial committee to supervise the negotiations process. The Committee formed a team to undertake bilateral and multilateral negotiations with the members of the WTO and the trade partners of the Kingdom. The negotiations will be followed by the stage of formulating the protocol of accession document and the Kingdom's obligations in this regard.

- The Ministry of Commerce also participated in the activities of regional and international trade organizations, followed up their recommendations and decisions, and provided information and services to businessmen and related agencies inside the Kingdom and abroad with the aim of enhancing trade and economic cooperation with different countries.

10.1.2. Key Issues

1. Organizational Efficiency

Some individually-owned enterprises, particularly the smaller ones, suffer from a lack of organizational efficiency that adversely affects their ability to develop appropriate work methods and perform effectively. More training programs by government agencies are needed in cooperation with the Chambers of Commerce and Industry and the large private companies, as well as greater efforts to develop such programs according to labor market and trade sector requirements in order to upgrade administrative capabilities and improve economic efficiency.

2. Dumping

The trade sector suffers from the dumping of inferior quality imported goods and subsidized foreign products on the domestic market. These goods enter the Kingdom in many ways and weaken the competitiveness of national products. An effective mechanism is needed to curb dumping and counter its adverse impacts, while continuing to improve the standards and specifications programs to limit importation of low quality goods, without violating WTO provisions, and intensify awareness programs.

3. Business Ownership Concealment

The Sixth Development Plan period saw the growing phenomenon of concealing the true ownership of businesses, to conceal the identity of foreigners through illegal practices to enable them undertake some commercial activities. Notwithstanding the efforts exerted by the Ministry of Commerce in collaboration with the Ministry of Interior, this phenomenon still exists, more committees are needed to combat this practice in accordance with the regulations related to the monitoring of stores and shops.

4. Issuance of Uncovered Cheques

Some individuals issue uncovered cheques despite the fact that the commercial papers regulation incriminates such behavior, which jeopardizes the rights of beneficiaries and also adversely affects confidence in dealing with cheques. The Ministry of Commerce, in collaboration with concerned agencies, has taken certain additional measures including impounding of deposits of violators at banks and their shares in stock companies and cancellation of their commercial registration. The Ministry of Interior also issued a circular identifying cases of uncovered cheques as crimes.

Despite efforts made, this fraudulent practice persists. Therefore, enhanced coordination is needed between the Ministry of Commerce, other related agencies and the Council of

Chambers of Commerce and Industry to promote awareness about the penalties and damages resulting from the issuance of uncovered cheques and to enhance the role of the information media in this regard.

10.1.3 Productivity

The efforts exerted by the Ministry of Commerce during the Sixth Development Plan period enhanced the role of the trade sector in the development of national income sources. The Seventh Development Plan aims at increasing the value added of this sector to SR 44.1 billion in 1424/25 (2004) and an average annual growth rate of 4.2 percent at constant prices of 1414/15 (1994), encouraging the establishment of more joint stock companies for investment of national savings, transferring large private companies into public joint stock companies in order to widen the scope of capital ownership and provide more job opportunities and upgrade production efficiency, as well as encouraging the integration of small establishments into large capital intensive units, thereby upgrading their administrative and technical capabilities and helping them diversify investments, keeping abreast of advanced technologies such as making use of electronic trade advantages which depend on the exchange of computerized information and facilities.

10.1.4 Role of the Private Sector

The achievements made during the Sixth Plan period reflect the increasing role of the private sector in various trade activities. The Ministry of Commerce aims, during the Seventh Development Plan, to enhance the role of the private sector in economic development, upgrading the economic efficiency of private firms and expanding the scope of their investments directed towards local and global markets, increasing the contribution of the Chambers of Commerce and Industry to the development of the private sector, and informing businessmen about the expected impacts of the Kingdom's accession to the WTO and how to deal with such impacts in an efficient and flexible manner.

Addressing the aforementioned issues and achieving the objectives of the Seventh Development Plan will require an integrated strategy for the development of this sector.

10.1.5 Development Strategy

The development strategy of the trade sector will be implemented through the following objectives, policies and programs:

10.1.5.1 Objectives

The main objectives of the trade sector in the Seventh Development Plan are as follows:

- To develop and direct non-oil trade (domestic and foreign) according to the needs of the national economy and to enhance economic and trade relations with other countries.
- To increase the efficiency of the private sector and expand the scope of its commercial activities in national and international markets.

- To develop and qualify the Saudi labor force in trade activities and to substitute them for non-Saudis.
- To improve the efficiency of trade sector performance in meeting the needs of domestic markets for goods and services according to Saudi and international specifications, and to ensure their availability for consumers at sufficient quantities and reasonable prices.
- To support the measures that help to develop non-oil exports and increase their share in total exports.
- To develop and organize the business services sector, and to promote financial services activities in cooperation with relevant agencies.

10.1.5.2 Policies

The above objectives will be implemented through adoption of the following policies:

- Reviewing and developing the prevailing rules and regulations to improve trade practices.
- Encouraging the establishment of more joint-stock companies and transferring large private companies into joint stock companies, so as to widen the scope of capital ownership and provide more job opportunities.
- Encouraging mergers of small establishments and companies with similar activities to achieve economic efficiency and strengthen competitiveness.
- Enhancing confidence in dealing with commercial papers, controlling violation of regulations and cases of dumping and concealment of business ownership and other trade practices which constrain the growth of trade.
- Enhancing the relationship between the Ministry of Commerce and the Chambers of Commerce and Industry to increase their role in private sector development, and encourage research and development activities related to the chambers' works, ensuring the spread of their services in order to keep abreast with national, regional and international developments.
- Increasing the rate of Saudi employment in trade activities.
- Encouraging the private sector's participation in the preparation and implementation of training programs in close coordination with the Council of Chambers, the Chambers of Commerce and Industry, universities, training centers, and other related agencies, in order to advance the skills of workers in the private sector, and to support private training centers and institutes.
- Rationalizing the policies and procedures for recruiting foreign labor and gradually replacing them with Saudi workers and creating job opportunities for Saudi nationals in the private sector.
- Continuing to assess the Kingdom's requirements for basic foodstuffs and supplies, and preparing plans for supplying such commodities from the best sources at minimum prices, as well as securing a strategic stockpile.
- Regulating and monitoring the domestic market and verifying the quality and validity of goods and services, while combating fraud.

- Coordinating with the GCC Secretariat General and related agencies for the establishment of a common Gulf market, and standardizing trade regulations and rules in accordance with the uniform economic agreement.
- Developing trade with Arab countries and supporting trade relations with all countries based on mutual interests and with the aim of opening new outlets for Saudi products, as well as supporting the efforts of the Exports Development Center at the Council of Chambers of Commerce and Industry, for the promotion of exportable Saudi products.
- Developing the securities market to increase its contribution to the development of trade activities.

10.1.5.3 Programs

The programs of the trade sector in the Seventh Development Plan concentrate on the development of the Ministry of Commerce's services and improvements in trade practices, regulating and classifying trade services and detecting trade regulation violations, supplying the main products and items from the best sources at minimum costs, as well as monitoring of quality assurance, regulating trade in the shares of joint stock companies and the conditions of insurance companies, issuing licenses for business services, training manpower and supporting studies and research relevant to the development of the trade sector and identification of its needs.

10.1.6 Growth Targets

The trade sector is expected to grow at an average annual rate of 4.2 percent during the Seventh Plan, and its share of GDP is expected to reach about 7.9 percent by the end of the Plan. Some of the main services provided by the Ministry of Commerce are expected to grow at the following annual rates: registration of companies and establishments 3 percent, registration of trade agencies 2 percent, registration of trade marks 5 percent, licenses of professional services offices 2 percent, licenses of hotels and rest houses 2 percent, testing and analyzing samples of locally produced and imported goods at quality control laboratories 1 percent and issuance of certificates of origin 2 percent.

10.2 TOURISM SECTOR

10.2.1 Present Conditions

The tourism sector contributes to the development of national income sources and the provision of job opportunities for Saudi citizens. The development of domestic tourism acquires particular importance in the Kingdom as a competitive alternative to foreign tourism on which a great deal of Saudi income is spent abroad annually with adverse impacts on the balance of payments and the volume of domestic demand for goods and services.

The various regions of the Kingdom are diverse in natural and cultural resources, and enjoy advanced infrastructure and great tourism potential. Most prominent among these are: the Red Sea Coast, the Gulf Coast, Assir and Baha regions in the Sarawat mountains, mineral water springs of Al-Hassa, Jawf, North Hail and near Madinah.

There was a marked qualitative development in tourism support services during the Sixth Development Plan period. Many conferences on domestic tourism were organized in several regions of the Kingdom, including those held in Riyadh 1415, in Abha 1417 and in Dammam 1419, in addition to many symposia held in Makkah and Tabuk. Furthermore, many tourism programs have been organized.

Prince Sultan Private College for Tourism and Hotel Studies has been recently established in Abha, and training programs related to tourism have been introduced in many colleges, institutes and institutions of technical education.

It is expected, by the end of the Sixth Development Plan, to finalize the study on the establishment of a tourism agency called the “Supreme Commission for Tourism” which is to be responsible for the planning, promotion and development of tourism in the Kingdom, the demonstration of Arab and Islamic heritage, and overcoming the constraints which impede the development of tourism as an important source of national income.

Notwithstanding these positive developments, tourism development still faces some constraints and key issues, which should be addressed within an integrated strategy in the Seventh Development Plan, with particular emphasis on providing feasible investment opportunities for both Saudi and foreign private investors.

10.2.2 Key Issues

1. Performance of the Tourism Sector

Improved performance of the tourism sector is necessary for the development of the domestic tourism during the coming stage of the development process. Intensive efforts will be needed in two major directions: first, improvements in organizational efficiency through employing specialized workers, and intensive training programs targeted at raising productivity; second, the provision of tourism facilities through encouraging private sector investment and the establishment of joint ventures to exploit the opportunities available in this sector.

2. Domestic Tourism

Domestic tourism must become more competitive if it is to appeal to Saudi nationals and discourage them from foreign tourism. Effective measures and policies will also be needed to achieve a qualitative shift in tourism services and facilities and to attract domestic tourists and those from neighboring countries, while streamlining the procedures relating to the movements of foreigners in the various regions of the Kingdom, and diversifying the tourism programs in general and information programs in particular.

3. Information Base

The success of tourism development efforts depends on the availability of a comprehensive and detailed information base about the number of tourists, their nationalities and their cultural, social and economic characteristics, as well as the potential for tourism in

various areas of the Kingdom. Thus, the Seventh Development Plan gives particular attention to the establishment of a tourism database.

10.2.3 Role of the Private Sector

The government has enhanced the role of the private sector through the provision of easy loans for hotel projects and the necessary infrastructure in tourism areas including roads, telephone systems, electricity, fresh water, gardens and parks, land and the organization of land use, as well as through the organization of cultural, artistic and sports festivals to promote domestic tourism, such as Aljandriyah Heritage and Cultural Festival and the athletic festivals organized by the General Presidency for Youth Welfare.

The private sector established many companies in the field of hotels and tourism areas, and constructed sports clubs and tourist villages and recreational centers on the Red Sea and Gulf coast, and established a large number of furnished residential units in these areas.

Tourism activity is expected to increase while the private sector is expected to establish more hotels, rest houses and tourist villages and recreational centers within an integrated strategy for tourism development during the Seventh Development Plan.

10.2.4 Development Strategy

The development strategy of the tourism sector in the Seventh Development Plan will be implemented through the following objectives, policies and programs.

10.2.4.1 Objectives

The main objectives of the development of tourism sector in the Seventh Development Plan are as follows:

- To develop the institutional structure of the tourism sector so as to improve its performance efficiency and competitiveness.
- To provide facilities and services related to the development of tourism and to improve their quality in order to achieve optimal utilization of tourism resources in all regions of the Kingdom all the year round.
- To establish new tourism areas.
- To create appropriate jobs for qualified Saudi manpower and provide appropriate training.
- To enhance the role of the private sector in the development of tourism and to encourage joint ventures to exploit available investment opportunities.

10.2.4.2 Policies

The main objectives of the tourism sector in the Seventh Development Plan will be achieved through adoption of the following policies:

- Preparation of comprehensive analytical studies on the socioeconomic aspects of tourism, as well as the preparation of periodic statistical reports to be used for evaluation of the sector's performance.
- Enhancing awareness about the significance of domestic tourism, its positive impacts and role in the national development process.
- Cooperation among domestic tourism development agencies responsible for provision of high quality tourism services.
- Encouragement of the private sector to expand projects for the development of domestic tourism.
- Developing tourism and hotel management studies and training programs at the universities and the Institute of Public Administration to train Saudi manpower in the field of tourism services.

10.2.4.3 Programs

The programs of this sector in the Seventh Development Plan include the promotion of domestic tourism, tourism exhibitions, tours, and awareness through information media under a mechanism for regulating and supervising all tourism activities, the establishment of tourist guidance centers for tourists, facilitation and expansion of transport services (particularly air transport), promoting tourism areas and encouraging citizens to utilize them, in addition to training of manpower and preparing studies and research related to the development of the tourism sector and meeting its needs.

10.3 STANDARDS AND SPECIFICATIONS

10.3.1 Present Conditions

The Saudi Arabian Standards Organization (SASO), established in 1392 AH (1972 AD), is responsible for developing and updating Saudi standard specifications, improving testing methods of calibration and metrology devices, coding the approved standard specifications, raising awareness of standards and specifications in the Kingdom, enforcing the rules on granting quality marks and issuing conformity certificates, authorizing private laboratories to provide testing and calibration services, providing technical consultation to various agencies, and participating in Arab and International Organizations of Standards and Specifications.

The major achievements of SASO during the Sixth Development Plan period are summarized in the following:

- Approval of 600 Saudi Standard Specifications in line with the requirements of the development sectors, thereby increasing the cumulative total to 1,560 approved standard specifications.
- Licensing 51 factories to use quality marks on Saudi and Gulf products, thereby increasing the cumulative total to 126 factories which have been thoroughly monitored to ensure the quality of their products.

- Issuing 167,862 conformity certificates on the country of origin for some imports of the Kingdom, in cooperation with the Ministry of Commerce.
- Issuing 1,366 export certificates for Saudi food products, thereby increasing the cumulative total to 1,874 export certificates.
- Studying 4,030 industrial licenses to ensure availability of approved standard specifications for the licensed products, thereby bringing the cumulative total to 11,746 industrial licenses.
- Authorizing 6 private laboratories to provide testing and calibration services in the fields specified by SASO and under its direct supervision, thereby bringing the total cumulative number to 13 laboratories.
- Adopting the set of international standard specifications ISO 9000 and ISO 14000 to the Saudi and Gulf specifications, and granting ISO 9000 certificates to 13 Saudi firms.
- Providing 2,020 technical consultations to various agencies, thereby bringing the cumulative total to 2,887 technical consultations related to problems of production and application of approved standard specifications on locally produced and imported goods.
- Analyzing 44,230 samples of various commodities and testing 23,500 calibers covering various types of metrology and calibration units, thereby bringing the cumulative total to 87,390 samples and 40,190 calibers.
- Undertaking the tasks of the Secretariat General of the GCC Standards and Specifications Organization, participating effectively in the activities of the Standards and Specifications Center of the Arab Industrial Development and Mining Organization, participating in the International Standards Organizations and Committees, participating in the preparation of Arab and Gulf draft standard specifications, as well as giving advice on the draft specifications prepared by other Arab countries.

10.3.2 Key Issues

1. Technical Capabilities and Specialized Expertise

The preparation of standard specifications requires qualified technical manpower with specialized expertise in various fields. SASO has a shortage of such expertise, particularly with its increased role after the Kingdom's forthcoming accession to the WTO and opening the domestic market for foreign goods and services. Hence, it is very important to support the technical capabilities of SASO and to provide it with specialized expertise through intensive training of Saudi manpower, more cooperation with academic and research institutions and related agencies in the Kingdom, making further use of the experience of international standards organizations, continuing with development of work methods of the technical committees responsible for preparation of draft standard specifications, so as to streamline the preparation steps and simplify the adoption of draft standard specifications and improve the level of compliance following final approval.

2. Monitoring the Agencies which Grant Quality Management and Environmental Systems Certificates

The set of the International Standard Specifications ISO 9000 pertaining to quality management systems, acquired the particular attention of trade blocs that give export priority to the products of companies which obtained ISO 9000 certificates. ISO 14000, pertaining to environmental systems, also acquired significance at national and international levels due to increased global attention paid to environmental protection.

SASO started to take necessary actions for granting quality management and environmental systems certificates to Saudi firms and adopting them as Saudi and Gulf Standard Specifications, so as to meet the needs of many Saudi firms to obtain these certificates which enhance the competitiveness of national products in domestic and global markets. However, SASO's financial and technical capabilities prevented it from achieving this objective with respect to many Saudi firms. Thus, SASO may authorize specialized private agencies to grant ISO 9000 and ISO 14000 certificates to national firms, while closely monitoring such agencies and ensuring the validity of certificates granted. Approaching this issue in this way conforms to the directions of the Seventh Development Plan with respect to reviewing all regulations, streamlining procedures and promoting non-oil exports.

3. Regulating the Conditions of Inspection and Testing Laboratories

The increased interest of producers and consumers to the quality of goods and services has raised the need of national industries for testing their materials and products to ensure conformity with Saudi standards and specifications, and the need of importers for testing their imports to ensure conformity with consumer demand and national and international standard specifications. This prompted the establishment of many laboratories for testing and inspecting goods which need to be regulated and monitored to ensure they perform their activities properly.

10.3.3 Productivity

SASO approved 600 Saudi Standard Specifications compared to 382 standard specifications in the Fifth Development Plan. Employee productivity amounted to 205 conformity certificates in 1418/19 (1998) compared to 75 certificates in 1414/15 (1994).

The preparation of draft standard specifications has been facilitated by the participation of government and non-governmental parties in committees set up for this purpose. The simplification of steps needed for the clearance of imported goods and their easy entry into the Kingdom was facilitated by implementing the program of issuing conformity certificates by authorized laboratories in the country of origin.

In the Seventh Development Plan, SASO aims to improve the productivity level of its various activities and services by simplifying and shortening procedures and enhancing performance of its employees through training programs and scholarships.

10.3.4 Role of the Private Sector

SASO developed a broad base of Saudi standard specifications and provided technical consultation in various private sector activities. It also encouraged private sector participation in the committees set up to prepare draft Saudi standard specifications. This has prompted a commitment to enforce Saudi standard specifications and has improved quality and competitiveness levels of national products in domestic and foreign markets. It also helped to curb the inflow into the domestic market of goods that do not conform to Saudi specifications.

During the Seventh Development Plan, SASO will continue to enhance the role of the private sector by allowing it to grant quality management systems certificates (ISO 9000) and environment systems certificates (ISO 14000) to national firms, and encouraging it to establish research and development laboratories, as well as testing and calibration laboratories according to specific rules and under government supervision.

An integrated development strategy will address the aforementioned issues and achieve the development goals of this sector in accordance with the directions of the Seventh Development Plan.

10.3.5 Development Strategy

The development strategy of the standards and specifications sector will be implemented through the following objectives, policies and programs:

10.3.5.1 Objectives

The main objectives of the standards and specifications sector in the Seventh Development Plan are as follows:

- To increase the preparation and approval of Saudi draft standard specifications and enhance the level of adherence to approved standards and specifications.
- To upgrade performance and maintain high standards of research activities in order to support the development of Saudi specifications and quality control systems.
- To contribute to the integration with GCC countries and participate in the activities of Arab and international standards organizations.

10.3.5.2 Policies

The main objectives of the standards and specifications sector in the Seventh Development Plan will be realized through adoption of the following policies and measures:

- Preparation and approval of Saudi draft standard specifications that conform with the environmental conditions of the Kingdom and promote the public interest.
- Keeping abreast with technological developments in the domain of specifications.

- Application of quality marks regulations and conformity certificates, the regulation pertaining to the approval of private laboratory services, and regular inspections of factories producing export-oriented goods.
- Provision of technical consultation to various agencies in general and national factories in particular.
- Development of SASO's capabilities to control the degree of adherence to approved standard specifications.
- Preparation of studies and research and participation in the applied research carried out by other agencies in the field of standards and specifications.
- Participation in the preparation of Gulf and Arab draft specifications.
- Effective participation in the activities of Arab and international organizations and Committees of which SASO enjoys membership.

10.3.5.3 Programs

The Seventh Development Plan programs of this sector concentrate on specifications and quality control, development of laboratories with the aim of protecting domestic markets and upgrading the quality levels of national products, development of SASO's laboratories and improvement of their efficiency, completion of the laboratories under construction and provision of adequate equipment, implementation of new laboratories, training of Saudi manpower, and monitoring research and studies related to standard specifications.

10.3.6 Growth Targets

Some of the major services provided by SASO are expected to grow at the following average annual rates: approval and amendment of standard specifications, provision of technical consultation and issuance of conformity certificates 5 percent, granting quality marks to Saudi factories and carrying out calibrations and analysis of samples at SASO's laboratories 3 percent, and issuing export certificates for food products 8 percent.

10.4 STATISTICAL SERVICES

10.4.1 Present Conditions

Rapid international economic developments in recent decades have elevated the role of information and the effective management in the process of socio-economic development. In response to this, governments, private sector institutions and other organizations all over the world exert substantial efforts to develop their capabilities to exploit available opportunities and face the challenges resulting from these developments. In this context, the availability of and access to statistical information at low cost are necessary for the management of knowledge and economic development.

The statistical services sector in the Kingdom is composed of a number of government agencies and private sector establishments which undertake the task of collecting, compiling and disseminating statistical information in their own fields on the basis of the internationally adopted standards. The Central Department of Statistics (CDS) is the main agency responsible for collecting, processing and publishing statistical information in the socio-economic fields. The CDS was established by Royal Decree No. 23 dated 7/12/1379 as the official statistical authority in the Kingdom. Under the Council of Ministers' Resolution No. 55 dated 18/3/1416, the CDS became subordinate to the Ministry of Planning instead of the Ministry of Finance and National Economy, due to its direct provision of information needed for the planning process.

The Sixth Development Plan witnessed some improvement in the quality and availability of statistical information. The CDS prepared and published the results of the General Population and Housing Census for 1413 (1992) and implemented the Private Sector Establishments Survey in 1415/16 (1995). It continued to collect statistics on the national accounts, foreign trade, the consumer price index, government services, and other economic and social information, and to publish such statistics in the statistical yearbook. The CDS also implemented a number of basic surveys, including the employment and wages survey conducted in 1417/18 (1997), a survey of business opportunities in the private sector (detailed coverage of specific sectors) and the household expenditure survey. Furthermore, progress was made in supporting the administrative systems related to data collection and the preparation of statistical reports.

10.4.2 Key Issues

1. Statistical Information

Despite intensive efforts to develop statistical information, the quality of available statistics is still below the level needed for development planning activities. Hence, the Seventh Development Plan aims to address this issue through specific objectives and policies for improving the quality and scope of statistics and ensuring their regular dissemination.

2. Coordination Among Government Agencies

The Central Department of Statistics (CDS) is officially responsible for the collection and coordination of statistics prepared by the ministries and government agencies. However, better coordination is needed to complete the primary data provided by the ministries and government agencies for processing by the CDS. Delays in providing such data also lead to delays in disseminating the final statistics.

3. Relations with Users of Statistics

The growing and rapidly changing needs for statistical information call for a mechanism to identify user needs in both public and private sectors. Thus, it is imperative to enhance responsiveness to user priorities regarding information.

4. Organizational and Administrative Capabilities

There is a need to develop professional and administrative staff of the CDS and related agencies for their important tasks of preparing statistical information and ensuring its quality and consistency with the requirements of development. The CDS faces some difficulties in attracting and retaining highly qualified staff and providing appropriate incentives for them. Hence, it is imperative to review the existing organizational structure of the CDS to enhance its responsiveness in meeting present and future needs for statistical information as well as improving performance efficiency.

10.4.3 Role of the Private Sector

There is a shortage of data and statistics about various private sector activities (in terms of quality, quantity and regular dissemination), which leads to inaccurate projections of private sector programs and projects. Although the field surveys financed by the government play an important role in overcoming these constraints, the Chambers of Commerce and Industry and major companies are expected to enhance the efforts of the CDS during the Seventh Development Plan and to expand and improve the quality of data related to the investment climate in the Kingdom. Thus, more of the requirements of the private sector will be identified to ensure further coordination between the government statistical services and the needs of this sector. Opportunities will also be available for the private sector to participate in statistical research and studies in various fields, such as performing statistical analyses, economic research and studies related to industrial and commercial institutions, as well as other research and studies based on official statistics.

Addressing the aforementioned issues will require the preparation of an integrated strategy for developing statistical services during the Seventh Development Plan period.

10.4.4 Development Strategy

The statistical services development strategy will be implemented through the following objectives, policies and programs:

10.4.4.1 Objectives

The main objectives of statistical services in the Seventh Development Plan are as follows:

- To achieve consistency between economic, social and demographic information and statistics.
- To give priority to the provision of reliable basic statistical information in line with the requirements of economic management and priorities of development.
- To ensure quality and timely dissemination of information.

10.4.4.2 Policies

The objectives of statistical services in the Seventh Development Plan will be achieved through adoption of the following policies:

- Enhancing the mechanisms for information exchange and facilitating the flow of statistics among users.
- Improving the technical, analytical and administrative capabilities of staff of the CDS and other government agencies related to statistical information.
- Improving coordination between the CDS and other ministries and government agencies with respect to the preparation, analysis and dissemination of statistical data to avoid duplication of efforts and to ensure consistency, reliability and timely provision of statistical information.
- Amending the general statistical law and drawing on international experience to improve CDS efficiency in their statistical working methods, ensuring the availability and dissemination of statistics on a regular basis, and obliging government agencies and private firms to provide CDS with required information in a timely manner.
- Enhancing public awareness of the important role of statistical information in supporting the socio-economic development process with the aim of facilitating the efforts of the CDS and other agencies in performing field surveys.

10.4.4.3 Programs

The programs of this sector concentrate on improving the quality of economic, social and demographic statistics, development of CDS manpower in various fields during the Seventh Plan, particularly with respect to: population surveys and analysis at national and regional levels, household budget surveys, updating data on government services, preparation of economic statistics, as well as censuses and surveys of private establishments. Attention will also be given to improving the utilization of statistics collected by other government agencies, development of short-term statistics, implementation of a comprehensive program to enhance and streamline the institutional aspects of the CDS, upgrading staff capabilities in the fields of statistical information preparation, compilation and dissemination, and to research and studies related to the development of statistical services sector.

10.4.5 Growth Targets

The CDS will exert further efforts, during the Seventh Development Plan, for the development of statistical services, the preparation of research and studies, and the dissemination of information and statistics in various fields, including:

Demographic and Social Statistics

- Updating the framework of the general population and housing census (1413) to draw a recent sample for social and demographic research and to implement the field work during the fiscal year 1423/1424 (2003).

- Conducting demographic research aimed at preparing projections of birth and mortality rates, as well as the distribution of population by nationality, age and sex.
- Preparation, analysis and dissemination of labor force and employment statistics by sector, occupation, and sex based on annual surveys of the labor market.
- Finalizing the results of the household income and expenditure survey conducted in 1419/20 (1999) and publishing them in 1420/21 (2000). Conducting a new survey in 1423/24 (2003) and continuing to conduct such a survey on regular basis every five years.

Regular Economic Statistics and Special Surveys

- Continuing to publish the annual national accounts by sectors and main spending categories, based on SNA (1968) and to adopt UN-SNA (1993).
- Publishing foreign trade statistics (exports and imports) by volume, value, classification, and country of origin on quarterly and bi-annual bases.
- Publishing the statistics related to price indices and the cost of living index on monthly and annual bases, and updating the commodity basket of the consumer prices index based on the household expenditures survey of 1419/20 (1999).
- Updating the base year for assessment of the national accounts in constant prices and issuing estimates pertaining to items of expenditure on GDP in constant prices.
- Issuing the survey of government services at local and regional levels.
- Preparing, updating and publishing the statistical yearbook and the annual statistical indicator.
- Preparing an import prices index.

In addition to these regular publications, the CDS will conduct general censuses and surveys needed to ensure accuracy of the annual projections based on surveys. These censuses and surveys include the following:

- General census of economic enterprises, with field work to be implemented during 1420/21 (2000) and once every five years thereafter.
- Annual surveys of economic activities, together with the preparation of annual economic survey aimed at providing indicators for all economic activities.
- The Ministry of Agriculture and Water, in coordination with the CDS, will implement the third general agricultural census during the early years of the Seventh Plan.

CHAPTER ELEVEN

DEVELOPMENT OF HUMAN RESOURCES

11. DEVELOPMENT OF HUMAN RESOURCES

This chapter highlights the achievements of the Sixth Development Plan covering the areas of general education, higher education, technical education, training, science and technology and information technology. The chapter also deals with the key issues to be addressed during the Seventh Development Plan period, economic efficiency, enhancing the role of the private sector, as well as objectives, policies and programs associated with these areas.

11.1 GENERAL EDUCATION

11.1.1 Present Conditions

The government has placed a very high priority on education as a means of developing human resources, increasing productivity and keeping abreast with scientific and technological advances. The priorities of the Sixth Development Plan emphasized the quality of general education and increasing the absorption capacity of general education. Accordingly, the government set aside enormous budgets for the development of this sector, exceeding SR 175 billion in total during the Sixth Development Plan period. Table 11.1 shows the average annual growth rates in the main general education quantitative variables during the Sixth Development Plan.

Table 11.1
Annual Growth Rates of General Education
1415/16 - 1419/20 (1995 - 1999)

Variables	Elementary		Intermediate		Secondary	
	Boys %	Girls %	Boys %	Girls %	Boys %	Girls %
New Entrants	0.98	(-0.74)*	6.09	4.73	12.03	7.46
Graduates	2.50	5.31	6.07	6.19	17.08	13.53
Schools	1.88	3.14	6.06	5.87	12.87	8.91
Teachers	2.49	3.90	5.69	8.13	12.10	12.60

* *Declining rate of growth is due to confining admission to elementary level to age six only and not to admit anyone under six years old.*

The total number of students in general education grew from about 3.8 million in 1415/16 (1995) (studying in more than 22,000 schools, with 170,000 classrooms and 286,000 teachers) to about 4.4 million in 1419/20 (1999) (studying in more than 26,000 schools, with 194,000 classrooms and 357,000 teachers).

11.1.2 Key Issues

1. Internal Efficiency

The internal efficiency of the education system still falls short of the planned targets. Relevant studies indicate an increased number of school years to graduation beyond the

allowed length of time through all levels of general education, high dropout rates in the first and fourth grades of elementary schools and in the first grade of intermediate and secondary schools, as well as high rates of repetition - which means many students occupy school places for a longer period in grades one through twelve. Rationalization of educational costs will require effective solutions to cope with such adverse phenomena and to improve the level of internal efficiency of education.

2. Teacher Performance (Males – Females)

Some indicators show a low level of teacher (male and female) performance. Therefore, it is imperative to place greater emphasis on training programs to upgrade teachers' performance and provide them with basic professional skills relevant to their areas of specialization.

3. Curricula and Teaching Methods

Further efforts are still needed for reviewing the curricula and ensuring that they conform with development needs, assessing teaching methods and implementing sound learning methods that will ultimately help pupils obtain knowledge through comprehension, analysis, and reasoning.

4. School Buildings

The availability of appropriate school buildings which meet the required standards remains a key issue in general education. Despite efforts to construct several school buildings in various regions of the Kingdom, whether through the public or private sectors, the percentage of leased buildings is still high for boys' and girls' schools. Unless resolved, this problem will probably get worse in the future, due to the high rate of population growth in the Kingdom. Therefore, intensive efforts should be made to construct more schools during the Seventh Development Plan, in accordance with required educational conditions and specifications.

5. Pre-school Education

Despite the importance of preparing children for early familiarization with the school environment, the number of enrollments at this stage is still limited. Thus, it is imperative to intensify public awareness programs on the importance of this stage for young children, and to encourage the private sector to participate in this field.

6. School Management

School management is no longer confined to administration only. Today, it must encompass technical and educational dimensions as well. Hence, greater emphasis will be needed in the Seventh Development Plan on all matters related to students, the technical and administrative staff, curricular and non-curricular activities, as well as other matters concerning improvement of the educational process.

11.1.3 Productivity

Despite the Sixth Development Plan's concentration on improving the educational system outputs, analysis of general education statistics shows that the average number of years to graduation spent by students is higher than the stipulated period (i.e. 12 years). Therefore, it is very important to examine the constraints on improving education efficiency during the Seventh Development Plan.

These constraints must be tackled through a strategy that will fulfill the intended objectives and will abide by the priorities and directions of the Seventh Development Plan.

11.1.4 Development Strategy

The development strategy of the general education sector in the Seventh Development Plan aims at achieving outstanding quantitative and qualitative growth through the following sets of objectives, policies and programs:

11.1.4.1 Objectives

- To provide educational opportunities to all citizens of school age.
- To improve the quantitative and qualitative level of general education.
- To improve the organizational and administrative settings.
- To train an indigenous workforce that will replace the foreign labor force.
- To invest in girls' technical education and vocational training and to open more technical secondary institutes.
- To expand adult and literacy programs so as to eliminate illiteracy.
- To intensify the cultural and academic programs and non-curricular activities.
- To upgrade the quality of special education programs for students with special needs (handicapped).
- To give more care and attention to the gifted and outstanding students.
- To establish more educational projects and facilities, to improve the existing ones and to encourage private sector participation in the field of finance.

11.1.4.2 Policies

- Improving the level of internal efficiency through adoption of an automatic promotion system between the early grades of elementary school while maintaining academic quality and educational standards.
- Improving the quality of education by reviewing and updating the academic curricula and teaching methods in line with development requirements, making use of specialized centers in this field and stressing the significance of on-going training of teachers.

- Supporting the introduction of computer science at secondary schools and considering the introduction of this subject in the intermediate and elementary schools.
- Expanding pre-education programs and encouraging the private sector to establish nurseries.
- Rationalizing educational expenditure through improving organizational efficiency, raising the performance of workers, addressing the constraints on internal efficiency, reducing the average number of years of education, adopting modern educational technologies, and enhancing the role of the private sector.
- Improving and developing educational management through selection of qualified staff and maintaining intensive training programs.
- Enhancing the role of the private sector in financing the construction of school buildings and educational facilities and finalizing the regulations which allow the acceptance of gifts and donations.
- Making use of the capabilities of specialized research centers in conducting diversified studies and research in various fields of education and preparing evaluative studies for the educational programs to ensure achievement of the intended objectives.
- Enhancing students' awareness of the importance of voluntary services and encouraging them to do their share of volunteer work, and organizing training courses to upgrade their skills and capabilities.

11.1.4.3 Programs

The programs of this sector concentrate on development of the educational process, management and operation, student services and non-curricular activities, and facility construction, with the aim of providing educational services to meet the steady increase in the number of school boys and girls in all stages of general education.

11.1.5 Number of Male and Female Students

Tables 11.2 and 11.3 show the planned number of enrollments and graduates for students (boys and girls).

Table 11.2
Male and Female New Entrants in the Seventh Development Plan
(in thousands)

Stage	Base Year	Years of the Plan				
	1419/1420 (1999)	1420/21 (2000)	1421/22 (2001)	1422/23 (2002)	1423/24 (2003)	1424/1425 (2004)
New Entrants (male)						
Elementary	188.0	196.0	203.0	210.0	218.0	227.0
Intermediate	166.0	168.0	170.0	175.0	179.0	181.0
Secondary	112.0	114.0	117.0	122.0	125.0	131.0
Teachers Colleges*	4.6	4.5	4.6	4.7	5.2	5.7
New Entrants (female)						
Elementary	183.0	191.0	198.0	205.0	213.0	221.0
Intermediate	155.0	164.0	167.0	171.0	175.0	180.0
Secondary	118.0	126.0	135.0	138.0	141.0	146.0
Teachers Colleges**	7.8	8.1	8.4	8.7	9.0	9.3

* 4 year post-secondary education.

** 2-4 year post-secondary education.

Table 11.3
Male and Female Graduates during the Seventh Development Plan Period
(in thousands)

Stage	Base Year	Plan Years				
	1419/1420 (1999)	1420/21 (2000)	1421/22 (2001)	1422/23 (2002)	1423/24 (2003)	1424/1425 (2004)
Graduates (Male):						
Elementary	180	190	200	211	222	235
Intermediate	128	130	136	138	142	146
Secondary	80	86	92	97	102	107
Teachers Colleges*	3.2	2.5	2.6	2.8	2.9	3.1
Graduates (Female)						
Elementary	166	168	173	178	182	188
Intermediate	138	143	146	149	154	163
Secondary	95	107	118	130	144	159
Teachers Colleges**	6.8	7.1	7.4	7.7	8.0	8.2

* 4 year post-secondary education.

** 2-4 year post-secondary education.

11.2 HIGHER EDUCATION

The government provides higher education through universities, girls' colleges, military colleges and some other government agencies.

11.2.1 Present Conditions

The government pays due care and attention to higher education for its significant role in producing highly qualified national manpower in various theoretical and practical fields. Accordingly, this sector received substantial financial allocations through state budgets during the Sixth Development Plan period, amounting to about SR 35 billion. Such allocations enabled higher education institutions achieve high growth rates in all educational variables. Total male and female enrollments in universities and girls' colleges increased from 165,000 students in 1415/16 (1995) to more than 263,000 students in 1419/20 (1999), at an average annual growth rate of 12.4 percent. The number of new entrants increased from 46,800 male and female students to 78,000 students, and the number of graduates from 22,000 male and female graduate to 41,000 during the same period, at an average annual growth rate of 13.6 percent and 16.8 percent respectively. Table 11.4 shows the annual growth rates during the period 1415/16 (1995) - 1419/20 (1999) for the main educational variables.

Table 11.4
Average Annual Growth Rates in Higher Education
1415/16 - 1419/20 (1995-1999)

Variables	Bachelor Degree level %
Total Students	12.4
New Entrants	13.6
Graduates	16.8
Saudi Faculty Staff	19.5
Non-Saudi Faculty Staff	- 6.5
Admin. and Technical Staff	9.2

The higher education sector witnessed significant positive developments during the Sixth Development Plan, the most important of which are:

- Issuance of the regulations governing the opening and operation of private colleges.
- Opening a number of community and private colleges throughout the Kingdom's various regions.
- Issuance of the Royal Decree establishing the King Khalid University in the Southern Region.
- Issuance of many rules and regulations pertaining to higher education institutions.
- Opening a number of new university colleges, research centers and deanships.

11.2.2 Key Issues

1. Absorptive Capacity

With the increasing number of male and female graduates of the secondary schools, the higher education institutions face great challenges in absorbing the huge flux of students. This issue should be dealt with promptly. The higher education institutions took in about two thirds of the secondary graduates, on average, during the Sixth Development Plan years despite the limited capabilities and current absorptive capacity.

The measures adopted during the Sixth Development Plan to expand the absorptive capacities of the universities, particularly by opening a number of community colleges in Jizan, Hail, Tabuk, and Hafalbatin and by consolidating the King Saud University branch and Imam Mohammed Bin Saud Islamic University branch in Abha into an independent university called “King Khalid University”, have contributed a great deal to alleviating the problem. Nevertheless, the Seventh Development Plan should provide effective solutions for this issue through intensive efforts of both public and private sectors and appropriate incentive programs to encourage further private sector contributions in this field.

2. Balanced Distribution over Available Specializations

The great pressures being imposed on the universities forced them to accept students in excess of their absorptive capacities, thus leading to an imbalance in enrollment between humanistic and scientific specializations. About two thirds of the total number of male and female students are enrolled in humanities. This in turn led to the number of graduates with backgrounds in the humanities exceeding labor market needs. Hence, restoring balance between the various specializations of higher education institutions has become an urgent demand dictated by the prevailing circumstances and development requirements.

3. Internal and External Efficiency

The steady increase of enrollment in universities in excess of their absorptive capacities has led to a decline in internal and external efficiency. This is reflected in the increased number of years spent by students until graduation and inconsistency between the qualifications of graduates of some specializations and those required by the labor market. Hence, efforts should be intensified during the Seventh Development Plan to improve the internal and external efficiency of this sector.

4. Private Sector's Needs

The level of integration and interaction between higher education institutes and the private sector remains inadequate, thereby weakening the private sector's ability to absorb and employ the Plan's expected number of graduates. Thus, the Seventh Development Plan will address this issue through the following steps:

- Linking education programs to development and labor market requirements, encouraging the private sector to provide practical training for students in the private establishments, and considering the period of training as a requirement of graduation.

- Reconsidering the training programs of graduates, and encouraging the private sector to participate in performance evaluation.

5. Continuous Education

Continuous education did not receive adequate attention by some higher education institutions despite its importance as a tool of human resources development and the need to keep abreast with rapid scientific and technological developments. Its role has been confined to providing knowledge to specialists and non-specialists at the expense of implementing academic diploma or certificate programs that would enable students to acquire advanced knowledge in their fields in line with changing technological and occupational conditions. Moreover, this type of education satisfies the needs of many categories in society and helps to improve the productivity and job performance of Saudi nationals. Hence, this type of education is expected to receive greater attention during the Seventh Development Plan.

11.2.3 Productivity

Field studies prepared by some Saudi universities revealed the need to improve the internal efficiency of the higher education system in terms of the number of years a student may need to graduate. Hence, the Seventh Development Plan is keen to address this issue within its priorities related to rationalization of government expenditure and improvement of productivity.

11.2.4 Development Strategy

The development strategy for higher education in the Seventh Development Plan aims at achieving the following objectives, policies and programs:

11.2.4.1 Objectives

- To provide opportunities to individuals with qualifications and capabilities to continue university education.
- To expand the higher education base in line with the requirements of socio-economic development, to direct the admissions policy and to develop university programs and curricula in line with labor market needs.
- To continue developing Saudi manpower in terms of quantity and quality, and to substitute Saudis for non-Saudis.
- To upgrade the academic and administrative performance with the aim of improving the educational process.
- To enhance the role of universities in community service.
- To develop cooperation and coordination with related agencies in order to achieve the objectives of higher education in particular and development objectives in general.
- To expand the private sector's contribution in financing educational projects and programs, and to ensure increased reliance on self financing by enhancing the role of universities in providing research services to the private sector.

- To develop scientific research and postgraduate studies.
- To provide, operate and maintain university facilities at reasonable costs along with maintaining quality and good performance.

11.2.4.2 Policies

- Enhancing the absorptive capacity of higher education institutions through studying the changing needs for scientific and technological specializations necessary to meet the requirements of development.
- Developing the curricula and programs in line with the needs and requirements of the labor market, reviewing them on a regular basis and ensuring coordination between higher education institutions and the private sector.
- Improving internal and external efficiency of the higher education system through upgrading the performance and efficiency of Saudi workers by providing training and scholarships, selecting outstanding personnel for faculty staff and researchers, and providing them with opportunities to attend specialized scientific symposia and conferences.
- Increasing the private sector's participation in achieving the national objectives of higher education sector through establishment and operation of private colleges, participating in financing educational projects, scientific research activities, and on-the-job training programs.
- Expanding community services and continuous education programs to upgrade the capabilities of the Saudi labor force, encouraging organization of technical conferences and implementing their empirical findings for economic and social welfare.
- Placing emphasis on scientific and applied research and developing pertinent methods and tools, regularly evaluating academic programs, degrees and specializations as well as systems of study and examination, attracting outstanding researchers and academic staff to support research centers, linking scientific research and post-graduate studies with the problems of environment and society, keeping abreast with new knowledge and scientific developments, and ensuring participation of the private sector in financing.
- Enhancing students' awareness of the importance of voluntary services and encouraging them to participate in voluntary activities through organizing training courses to upgrade their skills and capabilities.

11.2.4.3 Programs

The programs of this sector concentrate on implementation and expansion of construction projects of the universities to meet the growing number of students, providing university laboratories, establishing experimental plants and other services. Programs also lay emphasis on qualitative development of the educational process which cover the main

tasks of the higher education institutions, providing modern administrative services and advanced technology at reasonable cost and maximum performance, providing all types of student services and activities including extra-curricular activities, and enhancing the activities of the higher education institutions in the field of community service.

11.2.5 Number of Male and Female Students

Table 11.5 shows the planned number of male and female new entrants and graduates at universities and girls' colleges.

Table 11.5
Planned Number of Male and Female Students
in the Seventh Development Plan

University	New Entrants			Graduates		
	Male	Female	Total	Male	Female	Total
King Saud University	47700	22300	70000	32300	15700	48000
King Abdul Aziz University	33600	26400	60000	20800	14700	35500
King Faisal University	10800	7200	18000	5700	5500	11200
King Fahd University	9000	-	9000	4300	-	4300
Islamic University	6000	-	6000	4500	-	4500
Imam University	58500	11500	70000	39200	8150	47350
Umm Al-Qura University	24400	15600	40000	8600	8700	17300
King Khalid University	13500	3500	17000	12000	800	12800
Girls' Colleges	-	200000	200000	-	92500	92500
Total	203500	286500	490000	127400	146050	273450

11.2.6 Role of the Private Sector

First: General Education

- Financing, implementing and developing educational facilities.
- Establishing private schools and increasing the share of private schools to 10 percent of the total enrollment of general education by the end of the Seventh Development Plan.
- Participating in financing school activities and supporting cultural, social, academic, occupational and sports activities.
- Expanding the finance of educational technologies, self education and distance learning programs.
- Participating in consultative committees for updating and developing various educational programs.
- Increased participation in student transportation.

Second: Higher Education

- Participation in financing the construction of some university facilities through build-operate-transfer schemes based on appropriate incentives to encourage private sector participation in these fields.
- Encouraging the establishment of private colleges and community colleges through an appropriate incentives plan.
- Considering the possibility of privatizing educational support services according to specific measures and controls that ensure efficiency, quality and affordability.
- Encouraging cooperation between the universities and the private sector in the fields of scientific consultation and training.
- Supporting scientific and research activities, and providing grants, awards, subsidies and long-term loans.
- Intensifying efforts aimed at retraining college graduates in line with the requirements of development and the labor market.

11.3 TECHNICAL EDUCATION AND VOCATIONAL TRAINING

11.3.1 Present Conditions

General Organization for Technical Education and Vocational Training (GOTEVT)

Technical education and vocational training play a fundamental role in the development of Saudi manpower and improving productivity. The importance of this sector was embodied in the Sixth Development Plan priorities, which stated: "Increasing the absorptive capacity of technical education and vocational training institutions and technological colleges to ensure sufficient output of graduates in terms of quantity and quality to meet the requirements of the national economy". This importance has been reflected in the financial allocations of this sector, which amounted to SR 6.1 billion during the Sixth Development Plan period.

Technical Education

Total enrollment in the technological colleges reached 12,500 in 1419/20 (1999) and total new entrants during the Sixth Development Plan period amounted to about 20,800, while the total number of graduates during the same period amounted to around 9,700. The operational efficiency of these colleges is relatively high, with a teacher/student ratio of about 1:6. With respect to pre-university technical education, by the end of the Sixth Development Plan 1419/1420 (1999) there were 10 industrial institutes, 16 commercial institutes, 4 agricultural institutes and 5 technical supervisors' institutes, all of three years study programs. Total enrollment at these institutes reached 21,000 students in 1419/20 (1999), while the number of new entrants to technical secondary education during the Sixth Development Plan period reached around 40,000 students and the number of graduates amounted to about 27,000 during the same period.

Total enrollment in other technical institutes which are under the direct supervision of relevant agencies, (MOH institutes and colleges for both males and females, female teachers' institutes, girls' intermediate colleges, MOPTT institutes and its former colleges, physical education colleges, and the two colleges of Jubail and Yanbu) amounted to around 41,200 in 1418/19 (1998), while the number of graduates reached about 14,800 in the same year.

- **Vocational Training**

GOTEVT runs 30 vocational training centers, one instructors' training center and three in service training centers. These centers are distributed throughout the Kingdom. Total enrollment in these centers amounted to about 12,300 trainees in 1419/20 (1999), and total enrollment during the Sixth Development Plan period as a whole reached about 40,000 trainees, while the number of graduates reached about 28,200 during the same period.

The number of trainees in other vocational institutes (on-the-job training, instructors' training, private education and training institutes, and vocational rehabilitation centers for the handicapped) reached about 108,200 male and female trainees during the Sixth Development Plan period and the number of graduates reached about 61,600 during the same period. Table 11.6 shows some quantitative variables of technical education and vocational training in the last year of the Sixth Development Plan.

Table 11.6
Technical Education and Vocational Training
1419/1420 (1999)

Variable	Technological Colleges	Industrial Secondary Education	Commercial Secondary Education	Agricultural Secondary Education	Technical Supervisors Institutes	Vocational Training
New Entrants	6005	4913	3271	457	917	-
Graduates	1958	1741	2260	209	632	7006
Enrollments	12462	9667	7678	823	2346	12387

The Institute of Public Administration (IPA)

The IPA is responsible for upgrading the efficiency of government employees and preparing them to undertake their tasks in a manner that improves the quality of administration and enhances development of the national economy. Financial allocations during the Sixth Development Plan amounted to SR 0.9 billion. Total enrollment in pre-service and in-service training programs reached about 22,200 and 72,300 trainees respectively during the Sixth Development Plan period. Enrollment in special programs amounted to about 5,300 trainees during the same period. A total of 256 consultations, 88 studies and 54 academic works were conducted by the IPA during the Sixth Development Plan period.

Table 11.7 shows the quantitative variables of the IPA in the last year of the Sixth Development Plan.

Table 11.7
Enrollments and Graduates of the Institute of Public Administration
1419/1420 (1999)

Variable	Pre-Service Training Programs	In-Service Training Programs	Special Training Programs	Higher Management Development
Enrollments	2652	13356	917	2481 (participants)
Graduates	851	13230	905	

Training in Other Government Agencies

Some other government agencies contribute to the development of national manpower through training programs associated with their activities. The total number of trainees (male and female) in government agencies during the Sixth Development Plan period reached about 449,900 and the number of graduates reached about 298,800 during the same period.

Training in the Private Sector

The private sector provides training in various fields which serve the national economy in general and are integrated with other training programs and curricula. The total number of trainees in private sector programs reached around 242,000 and the number of graduates about 213,800 during the Sixth Development Plan period.

11.3.2 Key Issues

1- Absorptive Capacity

Increased interest in joining technical education and vocational training institutions imposed a great challenge on the limited absorptive capacity of these institutions, which is not commensurate with the number of applicants in secondary and post-secondary education programs. Hence, increasing the absorptive capacity of technical education and vocational training institutions must have a very high priority during the Seventh Development Plan period, through opening more technical colleges and institutes and vocational training centers, improving the training outputs in terms of quantity and quality, expanding short-term training courses, providing cooperative training programs and expanding on-the-job training, all of which will be important aspects of the overall Saudiization strategy.

2- Vocational Awareness

During the Seventh Development Plan, greater effort must be made to promote vocational awareness by providing educational and vocational guidance to students and trainees, thereby encouraging a better understanding of the importance of vocational work from the early stages of education, improving social attitudes towards such work, and achieving

consistency between the technical education and vocational training system and the actual needs of the public and private sectors.

3- Occupational Accreditation

There is no system of occupational standards or accreditation. It is imperative, therefore, during the Seventh Development Plan to conduct field studies to identify the standard skills required for each occupation and to set-up an integrated system for occupational inspection and accreditation through which the skills required for each occupation can be identified and standard skills can be tested.

4- Internal Efficiency

Dropout and repetition ratios are still high in technical education and training despite the decrease of teacher/student and instructor/trainee ratios. This has led to lower internal efficiency, a higher average number of student or trainee years invested in graduation and higher operational costs.

This issue will be addressed during the Seventh Development Plan through the preparation of studies and research to identify the reasons behind such high rates and to take necessary actions for their reduction, for improving training efficiency, and for optimal utilization of training resources through improved organizational and instructional practices.

5- Teacher Preparation

Important linkages between teachers' theoretical knowledge and practical experience must be promoted by adequately preparing teachers through specialized training programs that will enable them to acquire the appropriate knowledge and skills to keep abreast with ongoing developments in their fields of specialization.

6- Actual Training Needs

Although some efforts have been made to study the labor market and ascertain its real needs, the major training agencies remain unclear about its actual needs. Hence, a comprehensive national training plan should be prepared during the Seventh Development Plan to identify the real needs of the labor market through coordinated action between the training agencies and users of training services.

11.3.3 Productivity

In spite of the Sixth Development Plan's emphasis on the importance of the technical education system output, results indicate high dropout and repetition ratios a high average number of years invested for education, and a low rate of internal efficiency. Therefore, it is imperative during the Seventh Development Plan to take proper measures to overcome these constraints. Table 11.8 demonstrates a range of efficiency variables in secondary technical education in recent years. The efficiency indicators shown on the table have been

derived from the analysis of data pertaining to the performance of a particular cohort during the period 1413/1414-1418/1419 (1993-1998).

Table 11.8
Productivity in Secondary Technical Education
1413/14 - 1418/19 (1993-1998)

Number of educational years invested	4.12
Percentage of students graduating without repetition	45.8
Percentage of students graduating after one year repetition	17.8
Percentage of students graduating after two years or more repetition	4.4
Internal efficiency %	72.9
Rate of dropout in the cohort %	30.8
Rate of repetition in the cohort %	1.2

11.3.4 Role of the Private Sector

- To participate in financing and implementing some programs and projects in the fields of technical education and vocational training.
- To open more private centers for technical education and training.
- To increase the scope of coordination and consultation between the private sector and the agencies responsible for technical education and vocational training.
- To give the private sector the opportunity to participate in the planning and implementation of on-the-job training.

11.3.5 Development Strategy

The development strategy of the technical education and vocational training sector in the Seventh Development Plan aims at achieving distinct quantitative and qualitative growth through the following objectives, policies and programs:

11.3.5.1 Objectives

- To contribute to the development of Saudi manpower, increase its supply and upgrade its efficiency to meet the requirements of the national economy.
- To improve the efficiency and effectiveness of training and to develop its various agencies.
- To improve the quality of training programs and concentrate on the use of advanced technology.
- To upgrade the curricula to meet the needs of the labor market.
- To ensure both horizontal and vertical expansion in the various areas of technical education and training to cover all regions of the Kingdom.
- To expand on-the-job training programs in both the public and private sectors.

- To enhance cooperation and coordination between technical education and training institutions and related agencies.

11.3.5.2 Policies

- Improving the response to labor market needs in line with economic developments, evaluating the skills of expatriate labor, and making use of on-the-job training through studying labor market requirements for various occupations.
- Expanding on-the-job training as an integral part of Saudiization strategy, and developing intensive programs to attain this through increased participation of the private sector in planning and implementing on-the-job training programs.
- Improving the quality of training outputs through student guidance and follow-up at all levels and adopting a selective test-based admissions policy.
- Raising capacity utilization of the various training facilities through more effective timing and duration of intensive short-term training courses, adoption of an apprenticeship system, expansion of cooperative education to cover all types of training, and optimal utilization of available training facilities in both public and private sectors.
- Extending technical education and training to all regions of the Kingdom.
- Enhancing the role of technical colleges in community service through organizing seminars, lectures and symposia which satisfy the needs of the community, as well as conducting studies and research and providing educational services.
- Utilizing the capabilities of specialized research centers in conducting studies and research related to the labor market and occupations for which demand is high.
- Continuously developing the quality of training programs and curricula, with due emphasis on the applied aspects at all levels, and ensuring private sector participation in this respect.

11.3.5.3 Programs

The programs of this sector during the Seventh Development Plan concentrate on development of the education and training system and improvement of its quality, paying particular attention to administrative development, community service and ongoing training, the construction of necessary facilities to increase the absorptive capacity, as well as more extensive preparation of studies and research related to issues and constraints of technical education and vocational training.

11.3.6 Planned Number of Students

Tables 11.9, 11.10, 11.11, 11.12 and 11.13 show the Seventh Development Plan growth targets of new entrants, graduates and total enrollment in the technical education and training programs of both public and private sectors.

Table 11.9
New Entrants and Graduates of Technical
Education and Training in the Seventh Development Plan

<i>Description</i>	1419/20 (1999)	1420/21 (2000)	1421/22 (2001)	1422/23 (2002)	1423/24 (2003)	1424/25 (2004)	<i>Total</i>
A- New Entrants							
Colleges	6005	6694	7462	8318	9273	10337	42084
Industrial	4913	5107	5309	5518	5736	5963	27633
Commercial	3271	3392	3518	3648	3783	3923	18264
Agricultural	457	472	487	502	520	537	2518
Technical	917	952	988	1026	1065	1106	5137
Supervisors							
Total	15563	16617	17764	19012	20377	21866	95636
Multi-disciplinary		400	1200	2600	4300	5000	13500
B- Graduates							
Colleges	1958	2238	2675	3336	4162	5189	17600
Industrial	1741	1899	2071	2258	2462	2676	11366
Commercial	2290	2374	2462	2554	2648	2746	12784
Agricultural	209	225	242	261	281	302	1311
Technical	632	675	721	769	821	877	3863
Supervisors							
Total	6830	7411	8171	9178	10374	11790	46924
Multi-disciplinary				260	840	1820	2920
C- Total Number of Students:							
Colleges	12462	13089	13747	14598	15502	16897	
Industrial	9667	10153	10664	11200	11764	12355	
Commercial	7678	8153	8658	9194	9763	10367	
Agricultural	823	886	954	1028	1106	1191	
Technical	2346	2464	2587	2717	2853	2996	
Supervisors							
Total	32976	34745	36610	38737	40988	43806	
Multi-disciplinary		400	2600	4940	8400	11580	

Table 11.10
Enrollments and Graduates of Vocational Training Centers
during the Seventh Development Plan

Description	1419/20 (1999)	1420/21 (2000)	1421/22 (2001)	1422/23 (2002)	1423/24 (2003)	1424/25 (2004)
Enrollments	11869	12718	13161	13828	14782	16535
Graduates	7006	8027	8365	8793	9494	10626

Table 11.11
Planned Number of Trainee Enrollments in the IPA during the
Seventh Development Plan

Description	1420/21 (2000)	1421/22 (2001)	1422/23 (2002)	1423/24 (2003)	1424/25 (2004)
Training programs:					
In-Service Programs	15214	15826	16544	17337	18039
Special Training Programs	1707	1775	1846	1920	1997
Sub-total: Trainees	16921	17601	18390	19257	20036
Pre-service programs:					
General	1351	1384	1424	1440	1484
Private Sector-Oriented	689	706	750	798	851
Special	250	275	300	325	350
Sub-total: Students	2290	2365	2474	2563	2685
Applied Workshops:					
Number of workshops	86	88	90	92	94
Number of participants	1920	1970	2020	2070	2120
Number of symposia/conferences	5	6	7	7	7
Number of participants	1500	1800	2100	2100	2100
Total Number of trainees and students planned for enrollment in IPA programs	22631	23736	24984	25990	26941

Table 11.12
Number of Trainees and Graduates of Training Programs of the Government Sector^(*)
during the Seventh Development Plan

Description	1419/20 (1999)	1420/21 (2000)	1421/22 (2001)	1422/23 (2002)	1423/24 (2003)	1424/25 (2004)
Enrollments	74197	78477	83066	87987	93296	98938
Graduates	66896	71123	75757	80878	86515	72740

Table 11.13
Number of Trainees and Graduates of the Private Sector
Training Programs during the Seventh Development Plan

Description	1419/20 (1999)	1420/21 (2000)	1421/22 (2001)	1422/23 (2002)	1423/24 (2003)	1424/25 (2004)
Enrollments	54427	59663	65402	71695	78592	86153
Graduates	46262	51309	56900	63091	69946	77537

^(*) Includes postal training centers, colleges of telecommunications, training centers of the Ministry of Agriculture and Water, Ministry of Labor and Social Affairs, Ministry of Foreign Affairs, Presidency of Civil Aviation, Health Affairs at the National Guard, Security Forces Hospital, King Faisal Specialist Hospital, King Khalid Ophthalmology Specialist Hospital, Ports Authority, Railways Organization, Saudi Arabian Airlines, Saline Water Conversion Corporation, Saudi Basic Industries Corporation, Electricity Companies, Saudi Aramco and Royal Commission for Jubail and Yanbu.

11.4 SCIENCE AND TECHNOLOGY (S&T)

11.4.1 Present Conditions

Successive development plans have stressed the vital role of science and technology (S&T) and the importance of establishing a national base of S&T capable of innovation and invention as well as assimilation and adaptation of technology.

In recognition of this, King Abdul Aziz City for Science and Technology (KACST) continued its achievements in various fields during the Sixth Development Plan period through its scientific and technological programs. The most important achievements are summarized as follows:

- KACST continued its efforts in applied research - within the annual grants programs (15, 16, 17) – by supporting 77 research projects in various scientific fields.
- Regarding national grants, 5 research studies have been supported and 123 research projects within the small grants program, while 111 research theses have been supported under the post graduate students research grants.
- With respect to the preparation of the Long-Term Comprehensive S&T Plan in the Kingdom, the first and second stages have been completed, relating to the study of present conditions and prognostication studies respectively. Work is also under way with respect to the preparation of the national policy for S&T.
- KACST continued to issue the S&T Journal, of which 48 issues have been published, thus contributing to the dissemination of scientific and technological awareness among citizens.
- 10 patent rights have been granted and the procedures for verifying 79 applications have been finalized. More than 358,000 scientific terms are now stored in the computerized data bank covering most fields of S&T.
- 72 individuals have been sent on scholarships abroad to obtain master's and doctorate degrees, while the number of trainees inside the Kingdom and abroad reached 1,857 trainees.
- 12 solar radiation observation stations have been installed.
- In the field of remote sensing, KACST continued to provide public and private sectors with satellite images, by providing 6,000 images in the form of printed photos or compatible diskettes.

11.4.2 Key Issues

1- Technological Capabilities

The Kingdom needs to establish a national S&T base capable of assimilating advanced technologies. This can only be achieved through enhancing the role of Research and Development (R&D) institutions, developing a proper mechanism for coordinating and integrating the activities of these institutions in the public and private sectors, providing adequate information to face accelerating technological developments at a global level, and developing qualified national manpower capable of dealing efficiently and flexibly with the transfer, adaptation and endogenization of technology.

2- Coordination between National Research Centers

National research centers and institutes lack both internal and external coordination, resulting in weak interaction and inter-relations between the producers and users of national technological solutions. This in turn acts as a major constraint on the development of the national research base. Therefore, it is imperative during the Seventh Development Plan to find prompt solutions for this issue and to make optimal utilization of available activities and resources.

11.4.3 Productivity

Demand for KACST services by various development sectors is expected to grow steadily. Hence, efforts should be intensified during the Seventh Development Plan to improve the level of productivity by attracting more qualified manpower with scientific background, intensifying scholarships and training programs, optimizing utilization of KACST's resources including laboratories and institutes, and through increased cooperation and coordination with research centers in the universities and the private sector.

11.4.4 Role of the Private Sector

Scientific research and technological development have become a prerequisite for enhancing the competitiveness of national products in domestic and global markets. This will require substantial investment by both the public and private sectors in the development of technical and physical facilities, as well as in the development of specialized Saudi manpower. Hence, major private companies should assign part of their resources for financing scientific research and technological development. Increased participation of the private sector is expected in the following areas:

- Adoption of promising innovations and further establishment of R&D centers.
- Making use of the R&D activities of the scientific research centers.
- Financing the costs of tests and field surveys related to product development and quality improvement and making use of survey findings.
- Establishment of advanced training centers to support development of S&T.

11.4.5 Development Strategy

The development strategy of the S&T sector will be implemented through the following objectives, policies and programs:

11.4.5.1 Objectives

- To adopt advanced technologies for rationalizing the utilization of economic resources and to intensify efforts in the field of technology adaptation and assimilation.

- To develop and expand databases, linking them with research centers in the public and private sectors.
- To enhance scientific and technological awareness among students at all levels of education.
- To encourage innovation and provide opportunities for specialists and researchers to undertake scientific and technological research.

11.4.5.2 Policies

- Finalizing the preparation of the long-term comprehensive national plan of S&T.
- Supporting applied research projects and technological developments.
- Upgrading the curricula of S&T to conform with the actual requirements of different development sectors.
- Enhancing local engineering design and consulting capabilities and resources to encourage the transfer of appropriate technologies and developing them locally.
- Developing a mechanism for linking the activities of the R&D sector with the requirements of the producing sectors.

11.4.5.3 Programs

The programs of this sector concentrate on supporting and developing the national technology base, boosting scientific research, implementing the applied and developmental research of KACST, enhancing the support activities of S&T, scientific and technological cooperation, supporting development of S&T policies, and KACST facilities, with the aim of enhancing local technological capabilities and expanding the implementation of applied scientific research at the national level in a manner that supports the requirements of national development.

11.5 INFORMATION TECHNOLOGY

Keeping abreast with rapid developments in the field of information technology and dealing with them efficiently and flexibly are among the most important future development challenges. Accordingly, the fourteenth objective of the Seventh Development Plan states: *“To keep abreast of developments in science, technology and information technology, and to encourage research, development and technology assimilation”*. This is also affirmed by the Fourteenth Basic Strategic Principle which states: *“Establishing a national science and technology base capable of innovating and inventing as well as adapting technology”*.

11.5.1 Key Issues

Preparation of a National Information Technology Plan

It is very important that information be considered as a supporting factor for decision-makers and planners who must cope with rapid scientific and technological

developments. Accordingly, the fifth policy of the Fourteenth Basic Strategic Principle states: “*Preparing a national plan that utilizes information and other technologies to promote knowledge and support economic development*”. Although many positive preparatory steps have been made in this regard, the preparation of such a plan will entail intensive efforts on the part of public and private agencies in coordination with the Ministry of Planning.

11.5.2 Role of the Private Sector

Local production of information technology (electronics, communications, computer hardware and software) is limited, with most current activities in this field concentrated in importing and marketing information technology products in the local market and providing some technical services. In the Seventh Development Plan, the private sector is expected to play a greater role in the industrial activities related to information technology.

11.5.3 Development Strategy

The development strategy of the information technology sector in the Seventh Development Plan aims at achieving the following objectives and policies:

11.5.3.1 Objectives

- To prepare a national information technology plan to further knowledge and support economic development.
- To provide updated data and information and facilitate access to information.
- To identify the role of institutions responsible for producing and collecting information and to integrate sources of information.
- To establish an information system with sub-networks linked to the integrated national information system.
- To disseminate information technology and services throughout society.

11.5.3.2 Policies

- Developing national information sources through improvement of pertinent information systems.
- Enhancing information awareness in society through educational curricula and information programs.
- Encouraging the private sector to participate in information activities.
- Upgrading the level and quality of information through establishment of a unified data and information base at national level.
- Supporting use of the Arabic Language in the field of information technology.

CHAPTER TWELVE
SOCIAL DEVELOPMENT

12. SOCIAL DEVELOPMENT

This chapter highlights the achievements of the Sixth Development Plan in the sectors of health care, social, youth and information services, cultural, religious, judicial and voluntary services. The chapter also deals with key issues to be addressed during the Seventh Plan period, production efficiency and strengthening the role of the private sector, and outlines the objectives, policies and programs of these sectors over the Seventh Plan period.

12.1 HEALTH SERVICES

12.1.1 Present Conditions

The Ministry of Health (MOH) is the major government agency entrusted with the provision of preventive, curative and rehabilitative health care for the Kingdom's population. The Ministry provides primary health care (PHC) services through a network of health care centers (comprising 1,751 centers) throughout the Kingdom. It also adopts the referral system which provides curative care for all members of society from the level of general practitioners at health centers to advanced technology specialist curative services through a broad base of general and specialist hospitals (182 hospitals). The MOH also undertakes the overall supervision and follow-up of health care related activities carried out by the private sector.

The security and military agencies provide primary, secondary and advanced levels of health care directly for their staff and segments of the general public, while school health units provide immediate primary health care for students. The General Organization for Social Insurance and the General Presidency of Youth Welfare provide health services for certain categories of the population. The Royal Commission for Jubail and Yanbu provides health facilities for employees at the two industrial cities. Moreover, the private sector provides health services through its health facilities including hospitals, dispensaries, laboratories, pharmacies and physiotherapy centers throughout the Kingdom.

Health care is not limited to preventive and curative aspects only; it also extends to the domain of medical research. The King Faisal Specialist Hospital and Research Center uses highly advanced technologies and acts as a reference hospital for cases that require advanced and specialist treatment, while it also conducts research on health issues in general and those related to the Kingdom in particular.

The Kingdom's universities provide, through their medical colleges or hospitals, specialist curative services and medical education and training programs, while they also conduct health research in collaboration with other research centers.

The Saudi Red Crescent Society undertakes an important and effective role in providing emergency services at the pre-hospital stage, either at the scene of accidents or during the transportation of patients to hospitals. The society also undertakes a unique task by providing such services for pilgrims and Umrah performers at the Holy Places.

Table 12.1 shows the development of the number of hospitals and beds in the Kingdom's health sector during 1414/1415 (1994) - 1418/1419 (1998). Figure 12.1 shows the development of the number of hospital beds during the same period.

Table 12.1
Hospitals, Beds and Health Care Centers
1414/15 - 1418/19 (1994 - 1998)

	1414/1415	1418/1419	Increase	
	1994 (Number)	1998 (Number)	Number	Percent
Hospitals:				
Ministry of Health	173	182	9	5.2
Other government agencies	34	39	5	14.7
Private sector	72	87	15	20.8
Total	279	308	29	10.4
Hospital beds:				
Ministry of Health	26878	27428	550	2
Other government agencies	8357	9119	762	9.1
Private sector	6592	8485	1893	28.7
Total	41827	45032	3205	7.7
Primary Health Care Centers*	1719	1751	32	1.9

* *MOH only*

Table 12.2 shows the number of employees of the health sector in the Kingdom during the period of 1414/15 - 1418/19 (1994-1998). Figure 12.2 shows the development of health sector employment during the same period.

Table 12.2
Manpower in Health Services
1414/15 - 1418/19 (1994 -1998)

	1414/1415	1418/1419	Increase	
	1994 (Number)	1998 (Number)	Number	Percent
Physicians	29227	30281	1054	3.6
Nursing staff	61246	64790	3544	5.8
Health technicians	32167	38730	6563	20.4

Tangible progress in the standard of health services was made during the same period. The proportion of pregnant women supervised by trained health professionals increased from 86 percent to 90 percent, immunization coverage of pregnant women against tetanus increased from 63 percent to 68 percent and the percentage of deliveries supervised by health professionals increased from 90 percent to 91.4 percent. Furthermore, work continued on implementing programs for the immunization of children against infectious diseases, particularly diphtheria, whooping cough, tetanus, poliomyelitis, measles, mumps, and hepatitis, along with the execution of health care programs for all people, the dissemination of health awareness and improved environmental health standards.

The maternity and child care programs resulted in the incidence of newborns whose weights at birth are more than 2500 grams rising from 94 percent to 95 percent and the incidence of children below 5 years of age whose weights are consistent with their age rising from 92.7 percent to 94 percent. The programs for control and prevention of infectious and endemic diseases resulted in the continuous decline in affliction by diphtheria, whooping cough and measles, as well as the almost total elimination of poliomyelitis, while the rates of affliction by endemic diseases (bilharsia, malaria and leishmania) have also declined.

Notwithstanding the above-mentioned favorable developments, there are key issues which still require effective measures during the Seventh Plan period.

12.1.2 Key Issues

In order to ensure the ongoing development of the health sector with the aim of expanding service activities and programs to meet the needs of the growing population, and to ensure continuous upgrading of service efficiency, the plan will address the following key issues facing the development of this sector and find appropriate solutions for such issues.

Figure (12.1): Development of the number of hospital beds during the Sixth Development Plan period

Figure (12.2): Development of health manpower during the Sixth Plan period

1. Management of the Health System

The government provides health care services through a number of government agencies while the private sector also provides additional services. There is a need to formulate a long-term overall management perspective to coordinate and integrate the provision of health services by the various agencies to ensure the optimal utilization of available resources as well as high performance efficiency and quality. Towards this end, the Seventh Development Plan stresses the importance of establishing a national council for the coordination of health services to be entrusted, inter alia, with the following tasks:

- Coordinating and integrating all health system elements in the Kingdom including the private sector.
- Ensuring optimal utilization of health facilities and available resources in the Kingdom.
- Selecting adequate alternatives for the operation of hospitals and financing health care services.
- Developing specific criteria for the establishment of new health facilities.
- Realizing regional balance regarding health services.
- Selecting adequate alternatives in the field of health insurance.
- Conducting studies and research in the domain of health services at the national level.
- Coordinating with educational and training institutions to meet the need for Saudi workers in the health field.

2. Health Services

Demand for health care services increases as a result of steady population growth on the one hand, and the increasing awareness of citizens and the changing pattern of diseases on the other hand. This increase in demand requires additional finance to expand available health facilities and to maintain general health standards in the Kingdom by upgrading the overall health care services. Several measures are needed to ensure that financial resources are available to meet this growing demand for health care, such as the application of a cooperative health insurance system and encouraging the private sector to undertake a greater role in financing the construction and management of health facilities, along with better coordination and integration between government agencies providing health care services with the aim of ensuring optimal utilization of available resources.

3. Health Manpower

The steady growth in health services raises the demand for labor in the health sector, which cannot be easily met by Saudi nationals due to the relatively small number of Saudi graduates from the medical educational and training institutions. Therefore, greater absorptive capacity is needed in the colleges of medicine, pharmacy, applied sciences and nursing, along with the opening of new colleges for these specializations.

Furthermore, it is also necessary to increase the number of health colleges supervised by the Ministry of Health, with the aim of training assistant technicians in various support specializations, and to upgrade the existing health institutes to become health science colleges with additional absorptive capacity. An expansion of scholarship programs is also needed, while the private sector must be encouraged to establish health colleges for training assistant technicians in the health care fields under MOH supervision.

12.1.3 Productivity

High quality health services must be provided efficiently and at the lowest possible economic cost.

Overall health standards have improved steadily in the Kingdom, as reflected by the decline in the incidence of infectious and parasitic diseases. For example, the incidence of poliomyelitis is now almost zero. The number of patient visits for the Kingdom as a whole decreased by 2.7 percent between 1414/15 (1994) and 1418/1419 (1998), while the health record system and the referral system adopted by the MOH shows a decline in the demand for general and specialized hospital services due to the provision of preventive and curative health care at general practitioner level in the primary health care centers. However, further efficiency improvements during the Seventh Plan will require the continued application of quality programs, regular follow-up and assessment of health care programs, implementation of a cooperative health insurance system, and cooperation between all agencies providing health services.

12.1.4 Role of the Private Sector

The general objectives and strategic bases of the Sixth Plan emphasized the continuous and increased participation of the private sector in the development process. The following are the major indicators of health care services provided by the private sector by the end of 1418/19 (1998):

- 87 hospitals with 8,485 beds, accounting for about 19 percent of the total number of hospital beds in the Kingdom, (Figure 12.3).
- 622 dispensaries, 785 clinics, 45 medical laboratories and 11 physiotherapy centers.
- 273 pharmaceutical stores and 3,208 pharmacies.
- Increased investments in manufacturing of drugs and medical supplies and supply of medical appliances, and pharmaceuticals, in addition to the operation of some government hospitals and maintenance and cleaning in all health facilities.
- Increased contribution of the private sector in the provision of health care services, where out-patient visits to its facilities increased from 12.1 percent of total out-patient visits in 1414/15 (1994) to 16.1 percent in 1418/19 (1998). Moreover, in-patients in the Kingdom's private hospitals as a percentage of total in-patients rose from 16.6 percent in 1414/15 (1994) to 27.1 percent in 1418/19 (1998).

The Seventh Plan's target is to ensure steady private sector growth in health care services, through greater participation in financing the establishment of health facilities and increased investment in the manufacturing of medicines, pharmaceuticals and medical equipment. An integrated set of policies for the development of the health sector will be needed to realize these aspirations and to address the afore-mentioned key issues.

12.1.5 Development Strategy

The development strategy of the health sector will be implemented through the following objectives, policies and programs:

12.1.5.1 Objectives

The major objectives of the health sector during the Seventh Plan are:

- To continue providing preventive and curative primary health care services and facilitate their accessibility through primary health care centers along with ensuring continuous support of specialist curative services.
- To continue to upgrade health standards and to reduce morbidity and mortality rates.
- To prepare and develop health manpower in order to meet quantitative and qualitative needs.
- To develop health management, improve information systems and conduct health research.
- To ensure coordination and integration between all health activities and services provided through health care agencies, as well as the optimal use of available resources.
- To enhance the role of the private sector in the provision of health services as well as in financing the construction and management of health facilities.

12.1.5.2 Policies

The major objectives of the health sector in the Seventh Plan will be achieved through the following policies:

- Continuing to implement primary health care programs while considering primary health care centers as the basis for providing health services.
- Giving priority to the provision of comprehensive health care for the most vulnerable sections of the population, particularly women, children, the elderly, the handicapped and those with chronic illnesses.
- Eliminating the causes of non-communicable diseases and developing instruments for diagnosis and treatment of such diseases, along with implementing preventive methods against environmental pollution.
- Increasing the number of hospital beds in order to achieve the planned beds / population ratio.

- Ensuring proper maintenance and renovation of existing hospitals and their provision with modern equipment.
- Studying the best methods for managing and operating MOH hospitals to allow flexibility in decision making, to support financing, to upgrade curative service efficiency and rationalize expenditure.
- Providing advanced diagnostic services in conformity with internationally recognized standards.
- Supporting organ transplant programs, establishing medical rehabilitation sections in central hospitals in various regions and ensuring that necessary facilities are made available to treat handicap cases.
- Supporting emergency and relief services.
- Applying quality control programs at all health facilities and developing guidelines for work and related procedures in each hospital.
- Applying a system of on-going monitoring and assessment for both preventive and curative health care programs at all levels using specific and clear scientific indicators.
- Applying a cooperative health insurance system to non-Saudis and studying the feasibility of applying the same to Saudis.
- Ensuring coordination among the various health sectors in order to achieve optimal utilization of resources through a supreme council comprising relevant sectors.
- Enhancing capacities of existing medical colleges and opening new branches in the various cities to absorb more enrollments with the aim of accelerating Saudiization of health manpower.
- Developing existing health institutes and opening health colleges in various cities of the Kingdom to absorb more enrollments and meet the growing demand for assistant technicians.
- Expanding training and scholarship programs in the Kingdom and abroad.
- Encouraging the private sector's participation in training health manpower through investment in education and training.
- Enhancing the private sector's contribution in the manufacture of medicines, pharmaceuticals and medical equipment.

12.1.5.3 Programs

The emphasis of programs in this sector is on upgrading the standard of health care services, health facilities and equipment, research and studies, as well as manpower development with the aim of providing preventive, curative and emergency medical services. This will be achieved through implementing health care programs, increasing the number of primary health care centers and hospital beds, completing on-going health facilities, establishing new facilities, training of manpower and paying attention to research and studies related to the improvement of health standards.

Figure 12.3: Percentage share of the private sector in total number of hospital beds.

12.1.6 Growth Targets

The following are the targeted objectives of the Seventh Plan:

- To maintain the current rate of hospital beds of 2.4 beds per 1000 inhabitants.
- To reduce the morbidity rate of infectious diseases per 100,000 inhabitants through immunization to 0.01 cases for diphtheria, 0.2 for whooping cough, 10 for measles and 0.01 for neonatal tetanus per 1,000 births, along with eliminating poliomyelitis.
- To reduce the morbidity rate of TB to less than 12 cases per 100,000 inhabitants.
- To reduce the morbidity rate of malaria to less than 200 cases per 100,000 inhabitants in high rate areas, to less than 50 cases per 100,000 inhabitants in medium rate areas and to less than 10 cases in low rate cases along with maintaining the cleanliness of infection-free areas.
- To reduce the morbidity rate of bilharzia to less than 200 cases per 100,000 inhabitants in high endemic areas, along with maintaining lower rates in lower endemic areas as well as maintaining cleanliness of infection-free areas.
- To maintain high rates of immunization of children against infectious diseases at not less than 95 percent for each of diphtheria, whooping cough, tetanus, poliomyelitis, measles, and TB.
- To increase the percentage of mothers who are provided with health care by health professionals to not less than 95 percent.
- To increase the delivery rate by health professionals to not less than 95 percent.
- To increase the immunization coverage of pregnant mothers against tetanus to not less than 85 percent.
- Opening and operation of 250 primary health care centers.
- Addition of 4,630 hospital beds in hospitals, some of which have been established and equipped, while others are under implementation and expected to be finalized during the Seventh Plan.
- To start construction of 44 new hospitals with a capacity of 50 beds each.
- To start construction of 15 new hospitals with a capacity of 100 to 500 beds, as well two centers for the treatment of chronic diseases with a capacity of 300 beds each.
- Establishment of 500 primary health care centers.
- Opening of 60 emergency centers.
- Preparation and operation of 130 mobile emergency centers per year during Hajj seasons at the Holy sites and Hajj roads.

12.2 SOCIAL, YOUTH AND INFORMATION SERVICES

12.2.1 Present Conditions

Several agencies are entrusted with providing social, youth and information services, the most important of which are the Ministry of Labor and Social Affairs, the Ministry of Information, the General Presidency of Youth Welfare and the General Organization for Social Insurance.

The Deputy Ministry for Social Affairs at the Ministry of Labor and Social Affairs provides its services in two major domains: social care and social development. The Deputy Ministry for Social Security is responsible for the programs and projects that contribute towards alleviating financial suffering of needy persons, through providing pensions to entitled persons and rendering temporary assistance during natural catastrophes and emergency conditions as well as to those with temporary disability. All these services are supported by the activities of the General Organization for Social Insurance in the domain of social insurance for employees of both public and private sectors and workers of the government and public institutions. The Retirement Pensions Fund provides pensions to the retired employees of the public sector, while the Saudi Credit Bank extends its services to individuals and families to assist them in improving their income, along with providing them with easy-term loans.

Table 12.3 shows facilities of social services, and the number of facilities and agencies providing such services by the end of the Sixth Plan 1419/20 (1999). Among these services are pensions, assistance and rehabilitation of certain beneficiaries categories who are capable of doing jobs consistent with their special conditions at rehabilitation and training centers established for this purpose.

Expenditure on social security pensions and assistance reached SR 10.8 billion during the period 1415/16 - 1418/19 (1995-1998), and is expected to reach SR 13.8 billion by the end of the Sixth Plan, an increase of 51.6 percent compared with expenditure in the Fifth Plan 1410/11 - 1414/15 (1990-1994). The Council of Ministers' resolution No. 75 dated 6.6.1413 increased social security allocations by rates ranging between 43 percent and 138 percent as of fiscal year 1413/14 (1993), reflecting the tangible attention given to social care.

The General Organization for Social Insurance represents one of the major channels for providing social and health services. By the end of the Sixth Plan 1419/20 (1999), the total number of workers covered by insurance at the pensions branch reached about 342,000, and about 1.5 million at the occupational hazards branch.

In the domain of sports and culture, the General Presidency of Youth Welfare implemented a comprehensive program covering construction of facilities in different sports and cultural fields in more than 27 cities throughout the Kingdom. The Ministry of Information plays an important role in enriching society's general knowledge along with acquainting individuals with their heritage, values, genuine traditions and achievements, as well as domestic and international developments including scientific, cultural, social and recreational aspects. On the other hand, the Ministry acquaints the world with the Kingdom's achievements in all domains, as well as the Kingdom's leading role at the Arab and Islamic level.

Table 12.3
Social Services and Number of Units Providing Services
1419/20 (1999)

Service Units	Number of Units
<u>Local and Community Development:</u>	
- Community Development Centers	15
- Social Work Centers	7
- Local Social Development Committees	71
- Centers for Training and Social Research	1
- Cooperative Societies	161
<u>Social Care:</u>	
- Rehabilitation Centers and Institutions for Paralyzed Children	25
- Residential Nurseries, Orphanages and Care Homes for the Elderly	27
- Social Guidance and Social Observation Centers	16
<u>Charitable Societies:</u>	173
<u>Social Security:</u>	
- Field Offices	76
<u>Social Insurance:</u>	
- Branch Offices	18

Table 12.4 shows the development of youth and information services by the end of the Sixth Plan 1419/20 (1999). These youth and information facilities have ensured broader participation in regional and international competitions. In the case of sports, 4,276 local and external contests have been organized during the Sixth Plan 1415/16 - 1419/20 (1995-1999). In the area of culture, more than 759 cultural contests have been organized in the fields of poetry, story-telling and recitals of the Holy Quran, as well as 75 cultural weeks, 61 folklore festivals, 215 plastic art contests, 44 drama festivals, 600 recreational camps and 550 public service and environmental health activities.

In the field of information, the broadcasting and TV transmission reached Arab States and Middle East countries as well as North America, Europe and Asia through satellites. Parallel to this, there are diversified local transmissions through six broadcasting stations: The Holy Quran, Islamic Call, General Program, Program Two, Europe Program and directed programs.

Concerning press and publications activity, the Ministry of Information issued -- up to the end of the Sixth Plan -- licenses for 177 daily newspapers, and weekly, monthly and quarterly magazines, thereby stimulating competition in this sector.

Table 12.4
Youth and Information Services Units
1419/20 (1999)

Service Units	Number of Units
<u>Youth:</u>	
- Sport and cultural centers	17
- Private sport clubs	154
- Club premises	25
- Youth hostels and permanent camps	23
- Sport stadia and pavilions	12
- Leaders preparation Institute	1
- Saudi Olympic Committee	1
- Sports Medicine Hospital	1
- Cultural Centers	1
- Main and branch youth offices	22
- Sport Federations	22
- Literary Clubs	12
- Culture and Arts Societies	10
- Stamp collectors Societies	4
<u>Information:</u>	
- TV Stations	123
- Radio Broadcasting Stations	25
- FM Stations	23
- Internal Information Centers	8
- External Information Offices	3
- Publications Offices	37
- SPA Offices	21
- Leased Satellite Channels	6

12.2.2 Key Issues

Notwithstanding the achievements made by the social, youth and information services agencies, there is always a need to develop, expand and upgrade these services to keep pace with the changing tempo of society as well as the new requirements resulting from such a momentum. Accordingly, the following key issues should be addressed.

1. Social Information and Indicators

Several agencies carry out social research and studies, such as the social centers in the Kingdom, social colleges at the universities, Naif Arab Academy for Security Sciences, the Center for Training and Applied Social Research at Al-Dariyah and other related agencies. However, due to poor coordination between these institutions and those agencies providing social services, the outcome of field research and indicators derived by these agencies are not fully utilized.

Thus, it is imperative to support and develop the Center for Training and Applied Social Research at Al-Dariyah so that it can shoulder the responsibility for building a broad base for social information, data and indicators on which decision makers can rely in formulating policies, developing programs and preparing plans. Furthermore, these centers must be provided with the facilities necessary for training Saudi nationals in conducting the required field surveys and research. Coordination is also of great significance between the various government agencies entrusted with social studies.

2. Positive and Adverse Impacts of Satellite Channels

The Saudi radio broadcasting and TV transmission agencies are undertaking their significant role in enhancing the flow of information and providing the various information services. However, the effectiveness of this role has become limited due to the ability of the satellite channels to attract viewers at the expense of local programs. This issue acquires further significance over time particularly with the continuous technological advances in this area. Accordingly, the TV Department should emphasize the production of competing programs for all categories of society while taking into account the nation's religious values and social traditions.

3. Utilization of Leisure Time

Youth is a social category with special needs requiring the close attention of both the family and the state. As most youths have relatively long leisure time, it is imperative to develop adequate means for helping them to utilize their leisure time for their own benefit in particular and for the benefit of the society in general. The facilities and services of the General Presidency for Youth Welfare -- which enjoy surplus absorptive capacities -- could be utilized in this respect through the provision of further incentives for youths to make use of these clubs and various facilities.

12.2.3 Productivity

In order to improve the productivity of social, youth and information services in the Seventh Plan period, the following requirements will have to be satisfied:

- Optimal utilization of existing service facilities and infrastructure to serve the maximum number of people.
- Conservation and maintenance of infrastructure in a highly efficient manner.

- Development and training of manpower.
- Continuous evaluation of the efficiency of provided programs.

12.2.4 Role of the Private Sector

In the context of the trend to encourage the private sector, the social, youth and information services sector has paved the way for the private sector to participate in the implementation of following activities:

- Establishment and maintenance of all facilities of social, youth and information services.
- Establishment of voluntary and benevolent projects that contribute towards supporting social care.
- Production, authorship and distribution programs as well as investment in the field of information media.

12.2.5 Development Strategy

The development strategy of the social, youth and information services sector in the Seventh Plan will be implemented through the following objectives, policies and programs:

12.2.5.1 Objectives

The major objectives of the social, youth and information services sector during the Seventh Plan period are as follows:

- To enhance the sense of belonging to the Faith and the Nation, and to promote awareness of the development plans' achievements.
- To develop Saudi Society by providing needed social development and social care programs, as well as raising citizens' participation therein.
- To achieve balanced regional growth in the provision of social services and social care programs throughout the Kingdom.
- To raise the income of individuals and needy persons through assistance and support of their own efforts.
- To continue to apply the social insurance system, through both pension and occupational risks branches.
- To upgrade the quality of information programs in terms of their social and cultural contents.
- To develop youth welfare programs in social, youth and information fields.

12.2.5.2 Policies

The achievement of the major objectives of the social, youth and information services sector depends on the implementation of the following policies:

- Further development of social care through establishment of more social homes, centers and institutions, encouragement of foster families to care for orphan children and those with special needs, as well as supporting the handicapped assistance program and voluntary social work.
- Expanding the provision of social development services to urban and rural areas as well as development of service and social development centers.
- Continuing to provide social security services and assistance to beneficiaries in order to help them improve their standard of living through their own efforts.
- Expanding the application of the social insurance system to cover both government and private sector workers, while ensuring integration between this system and the civil pension system.
- Improving the criteria and principles governing the evaluation of information programs, while drawing on the experience of countries with outstanding international experience in the information industry, continuing membership in international, regional and Arab information organizations and utilizing the information agreements reached with these organizations in conformity with the sensibilities of Saudi society.
- Emphasizing awareness programs that reflect the value of work, family solidarity as well as combating adverse phenomena.
- Enhancing the cultural and intellectual environment in ways that contribute towards enhancing cultural and literary life in the Kingdom.
- Expanding the base for financing programs through private companies.
- Ensuring coverage of all regions of the Kingdom by information services.
- Continuing to replace non-Saudi workers by Saudis, while developing and training Saudi nationals through scholarships or on-the-job training.
- Giving further attention to the youth welfare programs.
- Encouraging the private sector's participation in the establishment and management of youth centers to develop the physical and intellectual capabilities of youth.

12.2.5.3 Programs

The programs of the social, youth and information services emphasize accelerated social development and the enhancement of information and youth welfare activities, support for cooperative and private activity and improving facilities to promote local development, promotion of sports, cultural and social activities, completion of ongoing social services infrastructure projects, implementation of new projects as well as training of manpower with due emphasis on research and studies related to the development of society.

12.2.6 Growth Targets

Demand for social services and youth activities are expected to grow as a result of the natural increase of population and the increased utilization of programs on offer.

During the Seventh Plan, the number of beneficiaries from social development services will increase from 197,000 to 238,000. In the field of institutional care, the absorptive capacity of shelter institutions will increase from 37,228 beneficiaries to 52,584. Concerning the support of private and cooperative activities, the number of subsidies granted to benevolent societies will increase from 173 to 183, while subsidies granted to cooperative societies will increase from 164 to 174. Concerning Youth Welfare, the number of youths participating in sports, cultural and social programs is expected to increase from 546,830 to 600,000.

As for the information sector, the planned growth rates are as follows:

- Increase of broadcasting coverage from 95 percent to 97 percent of beneficiaries by the end of the Plan.
- Increase of Channel 1 TV coverage from 90 percent to 95 percent of the population by the end of the Plan.
- Increase of Channel 2 TV coverage from 75 percent to 85 percent of the population by the end of the Plan.

12.3 CULTURAL SERVICES

Cultural services constitute a major component of the social dimension of the development process, which combines with the economic dimension to develop the capability of Saudi citizens and improve the quality of their lives. Over the course of successive five-year plans, cultural services have made significant contributions in developing social progress in all its spiritual, material, intellectual, artistic and emotional aspects. Although Saudi culture is closely associated with Islamic and Arab civilization, it has become necessary to make contact with foreign cultures and civilizations, with the aim of benefiting from positive intellectual, literary and artistic aspects and avoiding negative aspects that run counter to the well established norms of Saudi society, and in order to rationalize access to the outside world.

12.3.1 Present Conditions

The Kingdom's progress in education and overall development has brought considerable advances in public awareness and has created a vivid cultural life, as clearly manifested by the volume of contributions of both male and female authors (currently numbering more than 500) in various arts. Such cultural progress can also be seen through the Kingdom's 12 literary clubs that operate in different parts of the country under the auspices of the General Presidency of Youth Welfare. These literary clubs, together with 10 branches of the Saudi Arabian Society for Culture and Arts, engage in several cultural activities, through symposia, literary evenings, lectures, book publishing, along with artistic activities in theatre, plastic arts and music. By the end of the Sixth Plan period, several cultural and artistic events have been organized, including about 534 events in story-telling and literature, 215 plastic arts events, and 61 folkloric festivals, the most prominent of which is the Al Janadriya National Heritage and Culture festival, which is held annually. In addition

44 dramatic arts' festivals have been organized, and 113 scientific events have been organized, together with over 550 events in environmental and community services activities. The Kingdom's information media assume a primary role in dissemination of general culture and in promoting awareness of citizens through the cultural and scientific material presented by the Saudi radio and TV stations. News reporting and analysis, as well as cultural and intellectual material and specialized scientific presentations and discussions, are all served by the Kingdom's 12 newspapers and 165 magazines.

King Abdul-Aziz Research Center is an important institution of national culture. The Center undertakes the archiving and documentation of the Kingdom's history, and is a fundamental reference resource that provides scientific and historical services to students based on the valuable documents owned by the center. Up to the end of the Sixth Plan period, the King Abdul-Aziz Research Center had under its computerized cardex system a total of 750,000 documents, plus 46,800 information sources. The King Abdul-Aziz Research Center library has completed indexation of the national center for documents and manuscripts and now houses over 90,000 manuscripts. The Center publishes a quarterly magazine, and has published the Kingdom's historical atlas which contains 118 maps. The King Abdul-Aziz Research Center also undertakes other scientific projects, such as preparing encyclopedia of the Kingdom's "who is who", a dictionary of the Kingdom's history and documentary films.

Libraries and publishing houses in both the public and private sectors assume a vital role in invigorating cultural life and in supporting cultural activities. Both made tremendous efforts to print, publish and distribute books. The following achievements are particularly noteworthy in this respect:

- King Abdul-Aziz Library makes available various sources of information, including books, periodicals, and audio-visual material, in all branches of human knowledge. The library is actively engaged in reviving Islamic and Arab heritage, and cooperates with research centers and libraries at local, regional and international levels in pursuing its objectives. It also makes its services available to all categories of society and now boasts acquisitions made up of 78,000 book titles, 1,015 periodicals, 18,000 manuscripts, 70,000 documents, 3,000 audio-visual tapes and 3,000 various other items.
- King Fahd National Library acquires the most important books, periodicals and documents in all branches of science and knowledge and makes them available to researchers and readers. It also provides library and information technology services and publishes a monthly bulletin in this respect. The library awards ISBN licenses to locally printed books. In the course of these efforts, King Fahd National Library has compiled a catalogue of Saudi authors, as well as publishing houses in both the public and private sectors. According to the library count, the Kingdom boasts a total of about 3,090 authors, both male and female, plus about 231 private libraries and publishing houses, besides about 129 governmental libraries and publishing houses.

In the field of cultural and environmental heritage, the Ministry of Education undertakes planning, follow-up and supervision of archeological discoveries, including maintenance and wide-scale announcement and promotion of such discoveries. The National

Commission for Wildlife Conservation and Development (NCWCD) assumes responsibility for natural and environmental resources, including conservation, development and upgrading of these resources.

In the area of archeological finds and museums, the National Museum in Riyadh and Al Masmak Museum of History are home to several archeological acquisitions. Ongoing archeological excavations in all parts of the Kingdom yield valuable archeological discoveries. Active efforts are also made in repair, renovation and maintenance of historical palaces, mosques, souqs and settlement areas in different parts of the Kingdom.

12.3.2 Key Issues

1. Study of the Cultural Scene

Despite the positive efforts, initiatives and developments that have previously taken place in the field of cultural services, the need still exists for a comprehensive study of the cultural scene. Such a study should be undertaken through the combined efforts of intellectuals, research and study centers, educational institutions, cultural bodies and publishing houses. Financial and moral support should therefore be provided to back up these efforts and a specific program should be prepared to implement the above-mentioned tasks.

2. Interaction with the Global Cultural Scene:

Interaction with the global cultural scene is the essence of national cultural activity. Both the government and the intellectuals share the responsibility to promote public awareness of the reality of the global cultural scene, in both its positive and negative aspects. This requirement therefore calls for the state to provide all types of support, and for the intellectuals to contribute through their cultural output and the responsibilities they assume in the various positions they hold, to promote public awareness and to influence social behavior towards all activity that promotes and supports spiritual and moral values.

3. Cultural Institutions

Over the course of the successive five-year development plans, the cultural institutions and agencies have made significant contributions to the development of cultural services. It has become necessary, however, to intensify efforts during the Seventh Development Plan to regroup cultural services within a single institutional framework, which would operate under the guidance of a comprehensive national plan to develop cultural services. The significance of adopting such an approach acquires additional importance as a result of the accumulation of developmental achievements, that have given rise to the improved quality of social life, in addition to the influences brought about by the relevant changes and developments.

12.3.3 Development Strategy

The development strategy in the cultural services sector will be implemented through the following objectives, policies and programs:

12.3.3.1 Objectives

The major objectives of the cultural services sector during the Seventh Development Plan are as follows:

- To exalt the values of Islamic and Arab civilizations.
- To enrich and continuously develop the intellectual facilities and activities and to support scholarly and academic studies.
- To develop a clear vision in dealing with the momentum of world cultural output.
- To promote intellectual, literary and artistic production.
- To support endeavors which seek to enrich the personality of the citizen and build his integrity.
- To develop and enrich child culture.

12.3.3.2 Policies

The following policies will be adopted in order to achieve the above-stated objectives of the cultural services sectors during the Seventh Plan:

- Undertaking and encouraging in-depth studies and research in various areas of Islamic heritage.
- Encouraging the compilation and verification of heritage, and ensuring that part of the activities of government-supported cultural agencies is directed towards this effort.
- Continue to publish encyclopedias and dictionaries relating to Arab culture.
- Exploiting the opportunities offered through regional and international organizations of which the Kingdom is a member, in bolstering cultural activity, through benefiting from other experiences as well as asserting the national cultural presence outside the Kingdom.
- Increasing the scope of the Kingdom's participation in international book fairs and art exhibitions.
- Adopting a national plan for book publishing in general, and for translation in particular. The plan would be formulated and supervised in joint cooperation with universities, literary clubs and government agencies, and would define important priorities and desired directions.

- Continue to hold the Saudi cultural week in all Arab countries as well as in selected foreign countries, and hosting similar events in Saudi Arabia.
- Continue to support the participation of Saudi intellectuals and men of letters in international cultural conferences, festivals, symposia and exhibitions.
- Seek to intensify participation in dramatic and artistic activities in Arab and international forums.
- Setting up a higher cultural council with the task of defining the general framework and basic directions, as well as developing the ways and means of supporting such directions.
- Continue to support public and school libraries.
- Developing the literary clubs and the Saudi Society of Culture and Arts and its branches.
- Enhancing the value of culture in educational institutions, through inclusion of general culture into educational curricula.
- Supporting the plastic arts by developing the existing exhibition halls, including the addition of ateliers for professional and amateur artists. The idea of encouraging the acquisition of plastic art works as a basis for a permanent art gallery should also be encouraged.
- Developing existing museums and activating their programs, as well as providing museums with documentaries, historical and artistic publications.
- Encouraging private sector cultural institutions to participate in cultural activities, and providing all possible facilities, incentives and prizes to creative persons.
- Encouraging literary clubs, and the Saudi Society for Culture and Arts, as well as other existing cultural institutions, to expand in publishing national cultural and intellectual output.
- Taking the necessary measures to facilitate book exchange and circulation.
- Supporting the book fairs held periodically by the government or by relevant publishing agencies.
- Considering the idea of establishing centers for the development of child culture equipped with suitable scientific tools, means of practicing hobbies, small libraries and children's theatres.
- Giving attention to children's libraries and children sections in public libraries, and continuing to provide them with new issues of children's books and magazines.
- Stimulating the production of cultural material for children, including publications and information and cultural programs, and encouraging specialists in this field.
- Increasing the number of cultural programs on radio and TV, and stressing the requirement to broadcast cultural activities.

- Strengthening the relationship between intellectuals and artists on the one hand and mass media and other cultural centers on the other hand, removing any obstacles that might stand in the way. These agencies should make use of their expertise to disseminate as much cultural and artistic output as possible to all sectors of society.
- Establishing a Kingdom-wide cultural database that would serve individuals and organizations.

12.3.3.3 Programs

Effective implementation of the major programs of the cultural services sector calls for a feasibility study on the possibility of setting up the following institutions:

1. Higher Council for Culture & Arts

It has become necessary to consider the possibility of setting up a higher council of culture and arts. This idea is deemed necessary in view of the requirement to deal with the cultural challenges of modern times, which call for a lucid vision and a general course of action for cultural endeavors.

2. Public Commission for Literature, Arts and Science

Serious thought should be given to the feasibility of establishing a 'Public Commission for Literature, Arts and Science,' to undertake two important tasks, namely, to take good care of the artistic and literary heritage of the Kingdom, and increase the scope of cultural exchange with refined models of world cultures.

Areas of activity of the proposed commission will span the following fields:

- to record, document, study, preserve and publish the artistic and literary heritage of the Kingdom.
- to publish Arabic books and facilitate their circulation.
- to boost the momentum of heritage services and to promote translation from and into Arabic.
- to strengthen international cultural relations, cultural exchange agreements, and to support Arabic and international cultural weeks and festivals.

3. Arts Academy

Existing needs require that serious consideration be given to the idea of conducting a feasibility study to set up an arts academy to undertake the task of developing and supporting professional staff in the fields of arts and arts criticism, capable, in the short-term, of training a generation of professionals in these fields, which will guide and evaluate artistic activities, and thereby develop these subjects, as well as strengthen a national cultural identity. The arts academy may include specialized postgraduate institutes, such as: a Higher Institute for Drama Studies, and a Higher Institute for Criticism. The arts academy would start with two institutes, to which others would be added gradually.

12.4 RELIGIOUS AND JUDICIAL SERVICES

12.4.1 Present Conditions

The Ministry of Justice provides various judicial services, while the Ministry of Islamic Affairs, Endowments, Call and Guidance is responsible for propagation of Islamic call inside the Kingdom and abroad, taking care of philanthropic endowments and Al-Arbatah, as well as investment of the proceeds of endowments for the benefit of Muslims. The Ministry also supervises the construction and maintenance of mosques and cares for Islamic communities and minorities abroad. The Ministry of Hajj takes care of pilgrims and performers of Umrah and provides services and facilities that assist them in performing their holy rites. The General Presidency of the Holy Mosque and Prophet's Mosque provides services for these two holy mosques.

The General Presidency of Scientific Research and Ifta is responsible for issuing judicial opinions (Fatawa) on Sharia matters and for conducting and distributing Islamic research and studies. The General Presidency for the Morality Committees is responsible for preserving local mores and high standards of public behavior for encouraging people to adhere to Islamic teachings.

The religious and judicial affairs sector realized tangible achievements during the Sixth Plan period, the most eminent of which was reflected in the continuous expansion of the Holy Mosque in Makkah to about 356,000 square meters and the Prophet's mosque in Madinah to about 418,000 square meters, along with providing both holy mosques with furniture and integrated air-conditioning systems. The number of mosques under the supervision of the Ministry of Islamic Affairs, Endowments, Call and Guidance reached 41,000 mosques. The Ministry of Justice established 302 general and specialized courts, 121 notaries public, 5 follow-up units and 11 branches throughout the Kingdom, which contributed towards the settlement of a large number of legal cases and notary public transactions.

King Fahd Complex for Printing the Holy Quran produced -- since its initial operation in 1405 -- about 150 million copies and more than 70 Islamic publications, in addition to 43 translations of the Holy Quran meanings.

With regard to the development and investment of philanthropic endowments' returns, a number of housing complexes and charity endowment markets were constructed, along with taking care of Al-Arbatah and supporting endowed libraries. The Ministry of Hajj established 18 centers for religious guidance of pilgrims, modernized the pilgrims transport fleet by the addition of 3,900 buses and supported control committees. The Ministry also continued to supervise Tawwafa Organizations, Guidance Establishment, the pilgrims' transport vehicles syndicate and the consolidated Zamazamah office.

12.4.2 Key Issues

Notwithstanding the achievements made by the religious and judicial services sectors, there are still some key issues which should be addressed in the Seventh Plan. These issues are:

1. Awareness and Guidance

The awareness and guidance activities of the various religious agencies still require regulation and enhancement on the basis of an approach emanating from an awareness strategy prepared jointly by all concerned agencies. Enhancing the awareness and guidance work entails the preparation of a multi-language unified guidance directory covering directions pertaining to worship, religious rituals and the holy places. It is also imperative in this connection to expand the introduction of automation and computer networks in all religious agencies.

2. Judicial Services

Notwithstanding the achievements made by the judicial system and the ongoing efforts of the Ministry of Justice to support the judicial system and enhance its services, the system still requires more permanent premises for courts, judges, registrars and notaries public.

The Ministry will make every effort to increase the number of courts in all regions of the Kingdom, introduce computers in all services to streamline work procedures and accelerate the settlement of cases, while attracting qualified manpower, particularly judges, registrars and notaries public.

12.4.3 Role of the Private Sector

In the context of the government's efforts to strengthen the private sector's participation in the activities of the religious and judicial services sector, the following steps will be taken:

- Providing opportunities to the private sector to participate in financing the construction of some facilities of the religious and judicial services.
- The private sector shall carry out maintenance and cleaning tasks for many of the religious and judicial services' facilities.

12.4.4 Development Strategy

The development strategy of the religious and judicial services sector will be implemented through the following objectives, policies and programs:

12.4.4.1 Objectives

The major objectives of the religious and judicial services sector during the Seventh Plan are as follows:

- To promote recitation, memorization, comprehension, proper reading and dissemination of the Holy Quran.
- To take care of mosques.
- To attract suitable employees into the sector, including judges and other categories.
- To provide services and facilities to pilgrims and Umrah performers.
- To call people and guide them to adopt Islam.
- To demonstrate the Kingdom's efforts in supporting Islamic work and Muslim communities and minorities.
- To make an inventory of endowments and ensuring investment of their returns, while looking after these endowments and endowed libraries.
- To take care of Al-Arbatah and their residents.
- To meet the various regions' needs for judicial services.

12.4.4.2 Policies

The major objectives of the religious and judicial services sector in the Seventh Plan will be achieved through adoption of the following policies:

- Continue to release the publications of the King Fahd complex for Holy Quran printing, and ensure continuous translation by the complex of the Holy Quran meanings into different languages.
- Taking care of mosques as well as their development and maintenance.
- Supporting charity societies of Quran memorization and encouraging young Muslims for memorization and recitation of the Holy Quran.
- Giving priority to court clerks and registrars regarding employment in the judicial system along with training Saudi manpower.
- Streamlining procedures and means of litigation and ensuring accelerated settlement of cases.
- Improving the centers assigned for guidance of pilgrims and organizing their movement, increasing the number of centers for guiding pilgrims who lose their way while performing their rituals and increasing the number of centers for receiving complaints of pilgrims at Makkah, Madinah and the other holy places.
- Training employees involved in Hajj and Umrah activities in accordance with advanced technical and administrative practices.
- Ensuring further coordination between the Hajj Central Committee, Hajj missions and the other government agencies in order to provide best services to pilgrims and Umrah performers.
- Supporting the Kingdom's efforts in Islamic solidarity, publication and distribution of Islamic books, countering subversive movements and principles and refuting the

doubts raised about Islam. It is also imperative in this respect to establish a unit for Islamic awareness on Hajj at Makkah.

- Continuing to take care of the Saudi Islamic centers and institutes abroad, and consider assisting some other Islamic centers and societies abroad.
- Controlling and making an inventory of endowments and issuing pertinent legal deeds, developing the various endowment assets, optimal utilization of existing commercial complexes and establishment of new ones, and continuing to meet the conditions of those making endowments with regard to the utilization of the financial returns of each endowment.
- Concluding contracts with some service companies to undertake supervision, security, cleaning and maintenance aspects of Al-Arbatah, along with conducting social follow-up studies for residents therein. It is also important to consider cooperation with charities for women regarding Al-Arbatah allocated for women.

12.4.4.3 Programs

The programs of this sector during the Seventh Plan emphasize the development of the religious and judicial service facilities with the aim of increasing their number and enhancing their capacities, along with manpower training and research and studies related to improving the standard of religious and judicial services.

12.5 VOLUNTARY SERVICES

The government has always stressed the significance of voluntary work through the educational and awareness activities of the agencies providing religious, educational, social and information services, while coordinating with private efforts and encouraging the private sector to contribute to voluntary work in various fields. The role of the private sector in voluntary work received continuous attention in successive development plans. The Sixth Plan emphasized “continuing the encouragement of cooperatives, as well as private benevolent and commercial societies and institutions to undertake social and economic projects such as the management and operation of sanitarium, hospitals and clinics and the building of premises for charitable institutions, tourist and recreation centers”. The Seventh Plan devotes a special strategic principle for voluntary work as reflected in the fifth strategic principle which states “*Developing voluntary services, inculcating the concept and significance of such services on the part of the individual citizen and improving their methods and performance techniques*”.

12.5.1 Present Conditions

Voluntary services encompass voluntary, religious, social, educational, health and other services. The Ministry of Labor and Social Affairs is responsible for supervising the activities of charitable societies as well as local development centers and committees.

Charitable societies are an example of organized voluntary work. The number of charitable societies by the end of the Sixth Plan reached 173, of which 20 were charitable societies

for women which provide services in various social, educational, health and training fields, as well as providing financial assistance to needy persons. Members of charitable societies by the end of the Sixth Plan reached about 27,500, of whom about 2,505 were women. Table 12.5 shows some facilities and services supervised by the charitable societies by the end of 1418/1419 (1998).

Table 12.5
Voluntary Facilities and Services Supervised by Charitable
Societies by the end of 1418/19 (1998)

Type of Service	Number
1. Kindergartens	114
2. Day Care Centers for Handicapped Children	20
3. Residential Nurseries for Children	14
4. Children's Clubs	8
5. Girls' Education Centers	31
6. Women Tailor Shops	16
7. Computer Training Centers	26
8. English Language Teaching Centers	25
9. Residential Care Centers for the Elderly	4
10. Residential Centers for the Handicapped	4
Total	262

12.5.2 Key Issues

Development of voluntary services requires that some constraints and issues which emerged during the Sixth Plan be addressed, such as:

1- Coordination and regulation of voluntary charitable efforts

The agencies undertaking voluntary work will have to coordinate and regulate their efforts in order to contribute effectively to social development, in addition to government efforts in this respect.

2- Charitable work information and data

Due to the multiplicity of agencies providing charitable and voluntary services, it is imperative to classify these services and collect relevant data and information in order to determine the volume and type of such services and consequently develop them over time.

12.5.3 Development Strategy

The development strategy of the voluntary services sector will be implemented through the following objectives and policies:

12.5.3.1 Objectives

The major objectives of the voluntary services sector during the Seventh Plan are as follows:

- To improve the standard of voluntary services.
- To increase citizens' participation in voluntary and charitable programs.
- To realize balanced growth of voluntary services in the various regions of the Kingdom.

12.5.3.2 Policies

The major objectives of the voluntary services sector during the Seventh Plan will be achieved through the following policies:

- Encouraging the establishment of charitable societies and enhancing the role of such societies in the domain of voluntary work.
- Expanding the activities of charitable societies in the various fields of social services and social care throughout the Kingdom.
- Providing financial and technical support for voluntary charitable societies.
- Promoting awareness of the importance of voluntary work.
- Coordination between government agencies entrusted with training of volunteers.

CHAPTER THIRTEEN

TRANSPORT AND TELECOMMUNICATIONS

13. TRANSPORT & TELECOMMUNICATIONS

This chapter highlights the achievements made in both transport and telecommunication sectors during the Sixth Development Plan period and deals with the key issues that should be addressed during the Seventh Development Plan. Subjects related to production efficiency are also covered by this chapter, which also highlights the general objectives, policies and programs of both sectors during the Seventh Development Plan.

13.1 TRANSPORT

13.1.1 Present Conditions

The transport sector is a primary element in the infrastructure system which forms the basis for comprehensive socio-economic development. It provides direct support to other development sectors, such as agriculture, industry and mining, and ensures the linkage of population settlements.

The Ministry of Communications (MOC), the Saudi Railways Organization (SRO), the Saudi Ports Authority (SPA), the Presidency of Civil Aviation and the Saudi Arabian Airlines Corporation (SAUDIA) are the major agencies responsible for the establishment, management, operation and maintenance of this sector's key facilities.

In the domain of land transport, the Ministry of Communications expanded the roads network and improved its efficiency, with the length of paved roads reaching about 45,400 km by the end of the Sixth Development Plan 1419/20 (1999). Table 13.1 and Figure 13.1 show the development of the road network in the Kingdom during the Sixth Development Plan period.

In the context of improving efficiency and maintaining roads, the ordinary and preventive maintenance tasks carried out by the Ministry of Communications covered about 37,000 km of paved roads and bridges. The development of the roads network and improved efficiency led to the decline of traffic accidents from 167,300 in 1416 to 153,700 in 1418, or by 8 percent.

Table 13.1
Development of Road Network during the Sixth Development Plan Period
(thousand km)

Year	Paved Roads			Unpaved Roads
	Main	Secondary	Total	
1414/15	13.9	28.3	42.2	95.9
1419/20*	14.8	30.6	45.4	106.6
Increase (%)	6.5	8.1	7.6	11.2

* *Estimate*

Source: MOC

Figure 13.1: Paved Roads Network

The Saudi Arabian Public Transport Company (SAPTCO) provides regular public transport services within 9 main cities and around 450 cities, villages and hamlets. The services of SAPTCO also extend to 8 neighboring countries in addition to the services it provides in transporting pilgrims and Umrah performers. During the first four years of the Sixth Development Plan, the company transported 89 million inter-city passengers, 17 million inter-city passengers and about 2.1 million international passengers.

The Saudi Railways Organization operates a 1,391 km network of main and secondary railroads, three main passenger stations, the dry port in Riyadh, and a fleet of locomotives and cars.

The performance of railroads improved markedly following the establishment of the Riyadh Dry Port, with revenues from that source accounting for 68 percent of total revenues from main activities in 1418/19 (1998). SRO is expected to transport a total of 3 million passengers and 9.2 million tons of freight during the Sixth Development Plan period. Figure 13.2 and Figure 13.3 show the number of passengers and the volume of transported freight.

Eight major ports are now in operation in the Kingdom, with a total of 183 berths featuring a design capacity of 252 million tons per year. Table 13.2 lists the number of commercial and industrial ports in the Kingdom, including available berths and capacity utilization rates.

Table 13.2
Commercial and Industrial Ports during the Sixth Development Plan

Ports	Number	Available Berths	Annual Design Capacity (million tons)	Utilization* (%)
Commercial	6	137	66.8	48.5
Industrial	2	46	184.7	31
Total	8	183	251.5	36

* *Estimated 1419/20 (1999)*

Source: SPA

The Islamic Port of Jeddah is the Kingdom's largest commercial port in terms of the number of available berths (58), followed by King Abdul Aziz Port in Dammam (39 berths). The two King Fahd Ports in Jubail and Yanbu serve the two industrial cities. Generally, the Kingdom's ports enjoy sufficient berth capacities. In 1418/19 (1998), Jeddah and Dammam Ports achieved utilization rates of 57 percent and 55 percent respectively.

Figure 13.2: Number of Passengers Transported by Railroads

Figure 13.3: Volume of Freight Transported by Railroads.

Cargo handling in the major ports rose from 86.8 million tons in 1414/15 (1994) to 91 million tons in 1418/19 (1998). It is noteworthy that the Royal Decree No. 7/B/16941 of 16.11.1417 called for the assignment of management, operation and maintenance of ports and the provision of associated equipment to the private sector, while the Council of Ministers' resolution No. 201 of 6.11.1419 reinforced this trend of giving a greater role to the private sector in the management and operation of ports. This resolution called for a review of organizational structures and measures, as well as studying the feasibility of establishing free zones in the Kingdom's ports and a railroad between the Red Sea and Arabian Gulf ports. Figure 13.4 shows the volume of cargo handled by the commercial and industrial ports.

In the domain of air transport, the number of airports reached 25, in addition to the King Fahd International Airport which was opened in the Eastern Region by the end of the Sixth Development Plan. Table 13.3 shows the classification of these airports by operational criteria.

Table 13.3
Airports in the Sixth Development Plan

	International	Regional	Domestic	Total
In Operation	3	7	15	25
About to Start Operation	1	-	-	1
Total	4	7	15	26

Source: Presidency of Civil Aviation

The three international airports in Jeddah, Riyadh and Dhahran account for 79 percent of total air transport traffic. The total number of arriving and departing passengers through the Kingdom's airports is expected to reach about 131 million passengers during the Sixth Development Plan, while the total cargo traffic is expected to reach about 2.2 million tons during the same period. Figure 13.5 shows the distribution of passengers at airports by category.

SAUDIA operates regular flights between 25 domestic airports and to 44 foreign destinations. Work is under way on implementing a program for updating the SAUDIA aircraft fleet, including the purchase of 61 modern aircraft of various sizes. SAUDIA's share of the international air transport market to and from the Kingdom reached 44.6 percent in 1418/19 (1998), while its share of the cargo market was 59.2 percent during the same year. Figure 13.6 shows the number of passengers transported on scheduled flights.

Notwithstanding these positive developments and achievements, some constraints and issues still impede the development of this sector and should be addressed in the context of the Seventh Plan's strategic directions.

Figure 13.4: Cargo Handled Via Commercial and Industrial Ports

13.1.2 Key Issues

In the context of developing the transport network and improving production efficiency of available capacities, some issues have emerged which should receive substantial attention in order to realize planned objectives. These issues are:

1- Organizational Structures

Strengthening the private sector's role in the national economy constitutes one of the significant directions of development strategy in the Kingdom. However, there are some issues affecting the implementation of this policy in the transport sector, namely the inadequacy of the financial and administrative regulations in relevant establishments. These regulations will have to be reviewed to ensure the appropriate conditions for encouraging the private sector to effectively participate in the provision of transport services.

2- Information Systems and Data Bases

Notwithstanding the great efforts exerted by agencies involved in the preparation and analysis of data bases, there remains a need for the provision, coordination and improvement of further information to facilitate the analysis of demand for various transport services, the detailed analysis of costs, determining the rates of capacity utilization and ensuring reliable data about the vehicle fleets.

3- Traffic Safety

Notwithstanding the measures taken to upgrade the standard of traffic safety on the roads network, traffic accidents and the resulting material and human losses still constitute a waste of socio-economic resources. In 1418 for example, a total of 153,700 traffic accidents took place resulting in 3,400 fatalities. This calls for further efforts to improve the proficiency and behavior of drivers. Stringent rules should also be applied in monitoring traffic and in inspecting the technical condition of vehicles, along with dedicating sufficient attention towards raising traffic awareness.

4- Environmental Impacts

Expansion in the transport sector's facilities and increased traffic have adverse impacts on the surrounding environment as a result of pollutant emissions, particularly in high population density urban areas. This requires further efforts to eliminate pollution hazards, to raise awareness of the risks and problems of environmental pollution, to develop codes for the various types of pollutants, to apply restrictive measures to eliminate such negative aspects and to ensure the use of lead-free fuel.

Figure 13.5: Distribution of Passengers by Airports

Figure 13.6: SAUDIA - Passengers Transported on Regular Flights

13.1.3 Productivity

Performance indicators and standards reflect steady improvements in operating efficiency on the part of agencies operating in the transport sector during the Sixth Development Plan period. SAUDIA's seat load factor increased from 62 percent in 1414/15 (1994) to 64 percent in 1418/19 (1998), while labor productivity increased from 228,000 ton km to 231,300 ton km during the same period.

The operational performance of the ports improved as employee productivity grew by about 7 percent during the period 1414/15-1418/19 (1994-1998). Over the past six development plans, there has been substantial development of the ports in terms of both facilities expansion and improved operating efficiency, resulting in a decline in the time spent by a ship in port to 39 hours.

In the field of railroads, the rate of covering operating expenses directly from revenues increased from 52 percent in 1414/15 (1994) to 68 percent in 1418/19 (1998), while employee productivity in passenger and cargo traffic increased by about 60 percent from 258,000 (ton + passenger) km in 1414/15 (1994) to 412,000 (ton + passenger) km in 1418/19 (1998).

In order to achieve further productivity improvements in the transport sector during the Seventh Plan period additional regulatory measures will be adopted to facilitate the shift towards private sector operation and expansion of the transport sector, while ensuring an appropriate balance between commercial gains and social benefits.

13.1.4 Role of the Private Sector

The Sixth Development Plan aimed to give the private sector more opportunities to operate the facilities run by the government. Some measures have been taken in this regard, as a Council of Ministers' resolution was issued giving the private sector a greater role in managing and operating the ports. Thus, all port operation and maintenance tasks and the supply of relevant equipment have been leased to the private sector. Furthermore, a Royal Decree has been issued on the establishment of duty free shops at the Kingdom's international airports, in addition to licensing a private airline company to operate in the field of private air transport.

Work is under way on studying private sector participation in the management and operation of railroads, determining the most appropriate means for improving efficiency as well as studying the construction of roads by the private sector.

The adoption of effective policies and measures will be needed to achieve these aspirations and to address the above-mentioned constraints and issues during the Seventh Development Plan period.

13.1.5 Development Strategy

The development strategy of the transport sector will be implemented through the following objectives, policies and programs:

13.1.5.1 Objectives

The major objectives of the transport sector during the Seventh Development Plan are as follows:

- To improve the standard of operational efficiency.
- To reduce dependence on government funding and to increase the private sector's participation in the management and operation of transport facilities.
- To maintain transport facilities and to dedicate attention towards maintenance aspects.
- To achieve a balance between the adequate expansion of domestic and international transport networks and the expected growth in demand and traffic on the one hand, and taking into account safety aspects and reducing the adverse environmental impacts on the other.
- To ensure optimal utilization of available capacities.

13.1.5.2 Policies

The objectives of the transport sector will be achieved through the following policies:

- Improving organizational structures and existing measures to expand the private sector's role in establishing, operating and maintaining transport facilities within a framework that ensures a balance between the interests of society and the aspirations of the private sector.
- Promoting economic efficiency in the various transport modes and reviewing service prices so that they at least cover delivery costs.
- Increasing capacity utilization rates through improved operating efficiency and adoption of adequate marketing policies.
- Developing corrective and preventive maintenance programs to protect and maintain investments in the sector.
- Applying economic criteria when investing in new facilities.
- Improving technical skills of national manpower and upgrading their productivity.
- Improving data collection, particularly related to traffic accidents, and developing traffic safety programs.
- Intensifying the monitoring of drivers' proficiency and behavior, promoting awareness of regulations and strictly applying vehicle specifications and traffic rules.
- Studying all types of environmental pollutants and monitoring their levels.
- Developing general transport regulations as well as rules and specifications related to noise and other pollutants' levels.

13.1.5.3 Programs

The programs of the transport sector cover several elements related to the development of the road network infrastructure, improvement of airports and air navigation systems,

improvement of ports' efficiency, development of Saudi Railways Organization's facilities, maintenance and operation as well as manpower development.

13.1.6 Growth Targets

The transport sector's targets during the Seventh Development Plan are as follows:

- To complete the linkage of more cities and villages to the main road network.
- To study the establishment and operation of road projects by the private sector.
- To ensure management, operation and maintenance of port facilities by the private sector.
- To finalize the study on the privatization of SAUDIA.
- To finalize the feasibility studies for new projects and expansions in the field of railroads.
- To develop existing air transport facilities.

13.2 TELECOMMUNICATIONS AND POSTAL SERVICES

13.2.1 Present Conditions

The telecommunications sector plays a vital role in the Kingdom's socio-economic development. The importance of this sector is growing steadily at both government and private levels, as the Kingdom's regions become increasingly linked and the country as a whole establishes more links with other countries. These links are supported by an effective telecommunications network with a decisive role in supporting public and private sector activity.

The growing significance and technological development of the telecommunications systems have led to the restructuring of this sector consistent with the pace of international developments in this field. There was substantial growth in telecommunications services during the Sixth Development Plan period. Telephone exchange capacity increased from 1.77 million lines by the end of the Fifth Plan to about 3.63 million lines in mid 1419/20 (1999), while the number of working lines increased from 1.53 million to 2.40 million, an increase of about 57 percent.

The mobile telephone system, which has been introduced during the Six Development Plan, grew rapidly, as the number of subscribers reached about 735,000 in mid 1419/20 (1999). This period also saw the introduction of a number of new services such as the Internet, pre-paid card services, mobile telephone services via satellites, the Integrated Services Digital Network (ISDN) and the Asynchronous Transfer Mode (ATM), so that such services will become the cornerstone of the data transmission network. Furthermore, the digital systems have been expanded, which will help to upgrade the efficiency and capacity of the long distance telecommunication network.

During the Sixth Development Plan, the number of public telephones reached about 43,000 lines, of which 71 percent were run by the private sector. Figures 13.7 and 13.8 show the development of fixed and mobile telephone lines.

In the domain of postal services, the volume of postal items by the end of the Sixth Development Plan reached 993 million, an increase of 11 percent over the Plan period, of which external mail constituted 69 percent. Furthermore, postal coverage increased by 16.5 percent compared to the situation by the end of the Fifth Development Plan.

Table 13.4 shows the development of postal network facilities and postal coverage during the period 1414/15 - 1419/20 (1994-1999).

Table 13.4
Postal Facilities during the Sixth Development Plan Period

Facilities	1414/15 (1994)	1419/20* (1999)
Main Offices	448	461
Branch Offices	178	185
Express Mail Centers (Mumtaz)	38	78
Subscriber Post Boxes (thousand)	225.2	366.6
Postal Agents	640	711
Private postal offices	--	64
Street Mail Boxes	2273	2745
Cities, Governorates and Centers Served by Surface Mail	453	586
Centers Served by Mobile Mail	3594	4434
- Total Cities, Governorates and Centers with Direct Access to the Network	5135	5982

* *Estimate*

Private Sector and Privatization of Telecommunications

The Sixth Development Plan witnessed a major shift in the organizational framework of the telecommunications sector, as the Council of Ministers' resolution No. 135 of 15.8.1418 transformed the telecommunications utility and its components -- as well as its technical and administrative facilities -- into a joint stock company to be operated on a commercial basis. The same year also saw the issuance of the Council of Ministers' resolution No. 213 of 23.12.1418 which approved the formation of the Saudi Telecommunications Company. This development aimed at upgrading performance efficiency, increasing investments and keeping pace with the technological and organizational developments in the telecommunications sector.

Furthermore, the same period witnessed the expansion of the private sector's role through operation of public telephone cabins, marketing of pre-paid cards and providing mobile telephone services via satellites. The Seventh Development Plan's target is to ensure the gradual opening for competition of the Kingdom's telecommunications markets, thereby paving the way for attracting more private investment in the establishment and operation of

various telecommunications services.

Concerning postal services, the Sixth Development Plan saw the commencement in the provision of such services through offices run by the private sector, which contributed to the spread of these services, particularly in major cities.

Notwithstanding these positive developments and achievements, there are some issues which still impede the planned growth of this sector.

13.2.2 Key Issues

1- Infrastructure

Notwithstanding the major expansion by the telecommunications sector during the Sixth Development Plan in the field of fixed and mobile telecommunications, the growing demand for services requires further expansion to ensure a coverage rate of 25 lines per 100 inhabitants at least by the end of the Seventh Development Plan, compared to 11.2 lines per 100 inhabitants by the end of the Sixth Development Plan. Furthermore, development of the network requires accelerated rehabilitation of existing local networks, the introduction of digital systems for operating new services such as the internet, and the provision of all regions with services in a balanced manner. It is also important to develop postal services to meet the needs of a growing population throughout the Kingdom, particularly in major cities which are growing rapidly, a matter that entails further efforts aimed at expansion of postal facilities.

2- Organizational Structures

The changes in the telecommunications and postal sector during the Sixth Development Plan require a continuous review of the sector's organizational structure. Work has begun on the preparation of the telecommunications regulation which constitutes the organizational framework for telecommunication services. A specialized regulatory agency with financial and administrative autonomy will be established to regulate this sector, to set the necessary rules and regulations to ensure fair competition among providers of these services, to provide suitable conditions for attracting investments and to realize the maximum utilization of frequencies and digitalization. As for the postal sector, organizational aspects will be reviewed and existing structures will be developed with due emphasis on quality control, increasing service performance efficiency and the introduction of new services.

13.2.3 Productivity

Over the Sixth Development Plan period, there was steady progress in the productivity of the telecommunications sector. Labor productivity reached 7.2 employees per 1000 lines in the middle of the last year, compared to 13 employees per 1000 lines at the beginning of the plan. During the Seventh Development Plan, emphasis will be placed on the various criteria of production efficiency, related to increasing revenues and rationalizing expenditures and the number of telephone lines per employee, in conformity with the trend towards operating this sector on a commercial basis. Generally, raising productivity is closely linked with upgrading employee skills, improving the network and infrastructure,

and streamlining operations.

Figure 13.7: Development of Telephone Lines

Figure 13.8: Development of Mobile Telephone

With respect to postal services, the ratio of mail delivered within 24-48 hours increased from 14 percent of total mail by the end of the Fifth Plan to 28 percent by the end of the Sixth Development Plan. The ratio of processed postal items per employee increased from 117,000 items by the end of the Fifth Plan to 124,500 in 1418/19 (1998), an increase of 6.4 percent, and is expected to reach 125,000 items per employee in the last year of the plan 1419/20 (1999). During the Seventh Development Plan, emphasis will be placed on improving these ratios, and developing the concept of the multi functions employee.

13.2.4 Development Strategy

The organizational structure of the telecommunications sector has changed substantially with the application of the privatization program. The development strategy of this sector will be implemented in conformity with these changes through the following objectives, policies and programs:

13.2.4.1 Objectives

The major objectives of the telecommunication and postal services sector during the Seventh Development Plan are as follows:

- To provide a modern telecommunications infrastructure within an integrated digital network for fixed and mobile services as a basis for the provision of all domestic and international services.
- To satisfy the growing demand for telecommunication services in all regions, to ensure comprehensiveness of services and to enhance access to such services in line with population and economic growth rates.
- To provide high quality telecommunication services at adequate prices.
- To exert continuous efforts aimed at increasing productivity and improving the economic and financial performance of the telecommunications and postal services.
- To develop Saudi manpower and improve their performance standards.
- To encourage the private sector to invest in telecommunication services, and to establish and operate networks.

13.2.4.2 Policies

The major objectives of the telecommunications and postal services sector will be achieved through the following policies:

- Expanding and updating the telephone network in line with international standards of service.
- Providing new services in line with developments in technology and a strategic marketing plan.
- More extensive promotion and marketing of services.
- Applying a service pricing policy consistent with costs.

- Evaluating service performance using appropriate criteria and indicators.
- Increasing postal service offices.
- Improving employee productivity and expanding the adoption of automation and use of modern technology.
- Developing manpower training programs in conformity with technological and marketing developments, and providing subscribers with services.
- Finalizing preparation of the sector's regulatory frameworks in line with the trend towards privatization of this sector, opening of markets and providing all regions with services.

13.2.4.3 Programs

The programs of this sector pay special attention to the development of postal facilities, the improvement of particular services and the development of manpower. The programs of the sector will be implemented and financed by the Saudi Telecommunications Company. Moreover, these programs aim at supporting and developing telecommunication services, finalizing on-going projects, implementing new projects, developing manpower, and conducting research and studies related to the development of these services.

13.2.5 Growth Targets

The following growth targets will be realized during the Seventh Development Plan period in line with long-term objectives:

- To increase the service coverage rate to between 22 and 25 telephone lines per 100 inhabitants at least, to eliminate waiting lists for telephones and reduce disparities in service coverage between urban and rural areas.
- To link the increase in various telecommunication services with analysis of market conditions, available opportunities and competition.
- To improve the quality of services to international service standards.
- To use state-of-the art technologies to expand the network and develop infrastructure.
- To achieve positive financial outcomes by the end of the Seventh Development Plan.
- To raise Saudiization rates at the Saudi Telecommunications Company and implement overall programs for upgrading manpower skills and promoting their capabilities.
- To grant licenses for 150 postal agencies in the private sector.
- To establish 200 postal offices.
- To improve postal services through the introduction of new services such as:
 - * Postal information and tracking systems.
 - * Advertisement mail service.
 - * Hybrid mail service.
 - * Considering the introduction of commercial services.

CHAPTER FOURTEEN

PROVINCIAL AND URBAN CENTER DEVELOPMENT

14. PROVINCIAL AND URBAN CENTERS DEVELOPMENT

This chapter highlights the progress made during the Sixth Development Plan in regional development, municipal and rural services, and housing, as well as the key issues to be tackled during the Seventh Development Plan, the role of the private sector and the objectives, policies and programs of these sectors during the Seventh Development Plan.

14.1 PROVINCIAL DEVELOPMENT

14.1.1 Present Conditions

During the last thirty years, the regions of the Kingdom experienced marked improvement in standards of living and rapid growth in services and distribution. The projects implemented in the fields of education, health services, water, electricity, transport and telecommunications have contributed to such improvement as well as to the growth of the agricultural and industrial sectors, lower imbalances in the level of regional development and the control of unbalanced migration among different regions.

The establishment of the provincial system was a very important step towards improved development at the regional level, as it has contributed to the formulation of a comprehensive perspective on the resources available in each region and to planning the utilization of these resources in various projects, facilities and services. It will also play an important role in achieving the strategic objective of the Seventh Development Plan, which calls for balanced growth among all regions of the Kingdom.

The effectiveness of regional planning improved markedly during the Sixth Development Plan period as a result of efforts to collect geographical and statistical information about each region. Moving the Central Department of Statistics to the Ministry of Planning was a vital step in raising efficiency and laying the proper foundations for preparing future regional plans. The planning efforts focused on addressing the issues and constraints of development in each region, meeting the basic requirements for facilities and services and proposing an appropriate development strategy for each region in line with its available resources.

It is planned during the Seventh Development Plan period to enhance the role of the development centers in identifying appropriate locations for public and private investment projects in different cities and villages, by taking advantage of existing and planned infrastructure and the provision of public goods and services to citizens within these centers, while considering existing disparities between cities, towns and village clusters in terms of population density, economic resources and comparative advantages.

14.1.2 Key Issues

1- Migration and Regional Disparities

Major urban centers in the Kingdom continue to attract people from various villages and hamlets due to available job opportunities and high quality infrastructure, facilities and

services. To avoid urban development bottlenecks, it is imperative that proper measures be taken to limit migration to these urban centers through improved standards of living, the provision of job opportunities and the development of infrastructure in rural population settlements.

Regional disparities could be further reduced by increasing the rates of development in each individual region according to its comparative advantages, encouraging private investments, continuing to provide government assistance to enhance development activities at regional level, thereby contributing to improved living conditions and the development of population settlement structures and infrastructure.

2- Completion of Data Bases

Reliable data about the regions of the Kingdom is a basic planning tool for the Ministry of Planning and the provincial councils to identify available resources and their current utilization. Intensive efforts will be made during the Seventh Development Plan to collect and analyse data in coordination and cooperation with all related agencies. Such efforts are vital to improve the planning process and identify priorities for development in the various regions of the Kingdom.

14.1.3 Development Strategy

To address the technical, economic and social dimensions of the above-mentioned issues and to achieve the objectives of the Seventh Development Plan, an integrated regional development strategy will be implemented comprising the following objectives, policies and programs.

14.1.3.1 Objectives

Regional planning efforts will continue to achieve balance and integration between economic development needs and the provision of basic services to citizens such as education and health services, water and energy. The main objectives of regional development during the Seventh Development Plan are:

- To reduce internal migration which has adverse impacts on major urban centers.
- To protect the environment, preserve bio-diversity and implement national and international environmental standards.
- To develop, organize and coordinate economic activities at the regional level to ensure optimal utilization of economic resources based on the comparative advantages of each region.
- To enhance the role of the development centers and enable them to contribute to the development of the various regions of the Kingdom.

14.1.3.2 Policies

To achieve the objectives of regional development, the following policies will be adopted:

- Enhancing the efficiency of infrastructure and services in rural areas in order to reduce migration from these areas to the urban centers.
- Encouraging Saudi citizens to take up employment in rural areas through the provision of rewarding job opportunities, material incentives and appropriate living conditions in these areas.
- Establishing information centers in different regions and developing a mechanism for updating the information on a regular basis.
- Encouraging the private sector to invest in regions that enjoy comparative advantages needed for production projects.
- Encouraging the private sector to increase its investments in different regions and identifying appropriate investment locations through the development centers.

14.2. MUNICIPAL AND RURAL AFFAIRS

14.2.1 Present Conditions

The municipal and rural affairs sector supervises all aspects related to spatial planning, landscaping and beautification of cities and villages, construction and maintenance of infrastructure, provision of municipal services and improvement of public and environmental health services. The Ministry of Municipal and Rural Affairs (MOMRA) supervises the activities of the municipal and rural affairs sector through its executive agencies spread throughout the Kingdom.

The priorities of the municipal and rural affairs sector concentrated on the provision of municipal facilities and services in the urban centers and expansion of such facilities and services to the rural centers. To support these directions during the Sixth Development Plan period, the classification level of many municipalities was upgraded as shown in Table 14.1, including the classification of all major centers in the provinces of the Kingdom within category (A), thereby increasing their number from 7 to 11 municipalities. Figure 14.1 shows the principalities (amanat), municipalities and village clusters according to the MOMRA classification.

Table 14.1
Municipal Facilities and Village Clusters in the Sixth Development Plan

Agency	Total Number	Categories			
		A	B	C	D
Amanat	5	-	-	-	-
Water & Waste-water Departments	7	-	-	-	-
Municipalities	97	11	20	52	14
Village Clusters	62	-	9	25	28
Total	171				

The number of approved projects during the Sixth Development Plan reached 1,885 projects, of which 1,285 projects were either completed or are being implemented. Most of

these projects relate to water, wastewater and municipal roads. Furthermore, 170 structural plans have been prepared for many cities and villages, of which 60 are currently under implementation, and the comprehensive spatial strategy has been reviewed and updated in coordination with other related government agencies.

Notwithstanding these achievements and positive developments, this sector continues to face some issues and constraints which should be addressed during the Seventh Development Plan period.

14.2.2 Key Issues

The major transformations initiated by successive socio-economic development plans contributed to rapid urbanization in most parts of the Kingdom. However, this transformation resulted in the emergence of the following issues:

1- Demand for Municipal Facilities and Services

Population growth and its concentration in the urban centers caused a steady increase in demand for municipal facilities and services. Although municipal revenues have improved markedly relative to previous levels, there is still a need to enhance the resources required for the provision and rational utilization of municipal services. Thus, it is necessary to take the following actions:

- Enhancing the role of the private sector in establishing municipal facilities and providing municipal services by selecting the activities which are in line with the privatization program and developing appropriate rules and regulations.
- Directing large land developers and constructors of residential and commercial complexes to establish municipal facilities according to official specifications and under the supervision of concerned government agencies.
- Enhancing the awareness of users of municipal services about the importance of conservation and the rational utilization of such services.

2- Municipal Services

Although more than 5,000 villages have municipal services, there are still many villages which are in need of such services.

The village clusters represent an appropriate pattern for the provision of basic services to the maximum number of rural inhabitants, centers of attraction for economic activities (particularly agriculture-based activities), and an effective tool for reducing disparities between urban and rural areas and thereby limiting migration of population to the cities. Hence, enhancing the capabilities and efficiency of the existing village clusters through the provision of necessary equipment and linking them by road with satellite villages will enable them to provide services more broadly and effectively. Moreover, it is important to begin creating new village clusters according to a specific time schedule and to exert further efforts during the Seventh Development Plan to support development in viable areas, by providing basic services to improve living standards in rural areas so as to retain the rural population and relieve pressure on large cities.

Figure 14.1: Amanat, Municipalities and Village Clusters according to MOMRA Classification

3- Cities' Expansion and Spatial Boundaries

The wide gap between spatial expansion and the number of inhabitants, particularly in the large cities, has led to the spread of vacant lands inside cities and the dispersion of residential quarters. This makes it difficult to cover these dispersed quarters with networks of facilities and services, and leads to under-utilization of the existing infrastructure and higher financial costs of construction, operation and maintenance. To overcome this problem, the Seventh Development Plan will continue to enforce the rules of spatial boundaries and thereby ensure that each city expands spatially only in accordance with its actual needs, to maintain developed and vacant state-owned lands in different cities, to prevent encroachment on such lands, to establish a mechanism for timely removal of encroachments and to use the lands for the prescribed purposes.

4- Potable Water

The high rates of urban expansion and population growth require expansion in the provision of potable water by digging wells, desalinating sea water and establishing water networks and facilities. Due to limited sources of water and high related costs, as well as the need to supply sufficient quantities of potable water at affordable prices, it is imperative to rationalize water consumption for agricultural and industrial purposes, to increase utilization of reclaimed waste-water, to continue measures of controlling water leakage in the existing networks and to pay attention to pollution of potable water so as to maintain public health.

5- Wastewater

Despite the progress made with respect to wastewater services Kingdom-wide, there is still a need for further expansion in the provision of networks, household connections and treatment plants. This will entail developing appropriate alternatives and solutions for financing the vital waste water networks, increasing the participation of the private sector in the construction of networks, treatment plants, operation and maintenance, and setting appropriate measures of control in this regard.

6- Storm Water

Storm water may cause enormous damage to property and life, as well as to some facilities such as roads, bridges, and water, wastewater, electricity and telephone networks. As this problem has grown in recent years, it is very important to address it by supporting the agencies responsible for controlling the hazards of storm water and natural catastrophes.

7- Utilization of Reclaimed Waste Water

Reclaimed waste water represents an important source of water which should be utilized economically, particularly under the conditions of steady population growth, the scarcity of water sources and the high costs of producing and transporting desalinated sea water to inland cities and population settlements. The rate of reclaimed wastewater utilization is still very low, at about 23 percent only. The highest priority should be given to ensuring the maximum utilization of reclaimed wastewater for irrigation and industrial purposes.

Furthermore, the private sector should be encouraged to participate in major activities through the construction of treatment plants and distribution networks.

8- Municipal Statistical Data and Information

Despite the progress made by the municipal sector in data collection and processing over successive development plans, there remains a shortage of integrated information about the absorptive capacity of municipal facilities and services and their utilization rates and efficiency. Furthermore, this sector lacks recent information about the number of beneficiaries of municipal services and the areas covered by such services, thereby imposing constraints on the accurate assessment of needs. Also, the absence of a clear method for collecting and analyzing data limits the utilization of available data, as many departments within MOMRA adopt different methods for data collection in the absence of a comprehensive joint data base.

Hence, it is important to establish a computerized data base which links MOMRA to its affiliated agencies throughout the Kingdom and to use standardized specifications and forms for collection, tabulation and entry of data to ensure proper assessment and measurement.

9- Environmental Health Services

The Kingdom's cities have experienced rapid and tangible expansion of their physical boundaries, increased population and higher concentration in major cities in particular. However, this expansion has been associated with some adverse phenomena, such as the decline of residential areas covered by the wastewater networks as well as the higher generation of solid waste with lower utilization rates of such waste. Consequently, it is imperative to mobilize further resources in order to improve the standard of environmental health services.

As for solid waste, further efforts are needed to enhance awareness of the need to reduce solid waste generation and to make use of international experience in solid waste treatment and utilization. Only about 35 percent of the total volume of waste is currently being recycled in the Kingdom.

14.2.3 Production Efficiency

MOMRA has adopted several measures aimed at improving performance efficiency, including the following:

- Establishment of a value-engineering department to ensure implementation of the Ministry's projects at minimal costs, while taking into account improved performance and quality. Since 1415 (1995), this department conducted value-engineering studies for about 45 projects of the following types: buildings, roads, storm water drainage, services, facilities, wastewater and lighting. The preliminary estimated costs of these projects reached about SR 1 billion. These studies contributed to reducing the preliminary estimated costs of the projects by about 5-30 percent, thereby improving their economic and engineering efficiency.

- Preparation of a general perspective for a comprehensive national strategy for waste-water, in order to determine priorities of waste-water projects, the means of reducing their costs and participation of the private sector in financing such projects.
- Intensified efforts to develop the municipal revenues which led to these revenues increasing from SR 663 million in 1415/16 (1995) to about SR 1,235 million in 1418/19 (1998), an increase of 86 percent. Consequently, the contribution of revenues to the coverage of budget costs increased to 11 percent in the first year of the Sixth Development Plan and is expected to reach 20 percent in the last year of the Plan. On the other hand, revenues covered about 46 percent of operation and maintenance costs during the Sixth Development Plan period. The Ministry's goal is to ensure revenues cover *all* operation and maintenance costs in the near future.

14.2.4 Role of the Private Sector

MOMRA has conducted a study to define the municipal activities which can be privatized with the aim of upgrading performance efficiency and service standards. Private sector participation in implementing some services helps to reduce government subsidies to minimal levels, or to completely eliminate such subsidies in the long run. The collection of fees from facilities and services to be privatized will support municipal revenues and rationalize consumption.

Generally, private sector participation in the municipal sector can be organized as follows:

- Service contracts: such as street cleaning which is carried out by the private sector.
- Operation and maintenance contracts: such as slaughter houses where private companies are responsible for operation and maintenance.

At the same time, MOMRA has the opportunity to establish joint projects with the private sector and pave the way for establishing fully independent projects that provide municipal services in accordance with general commercial regulations and rules. Such projects include water purification, storage and distribution as well as treatment and re-use of wastewater.

14.2.5 Development Strategy

The development strategy of the municipal and rural affairs sector will be achieved through the following objectives, policies and programs:

14.2.5.1 Objectives

The major objectives of the municipal and rural affairs sector in the Seventh Development Plan are as follows:

- To continue to improve municipal and environmental services and to provide municipal services to those towns and villages with growth potential.
- To improve the operational efficiency of municipal facilities, infrastructure and services and ensure their optimal utilization.

- To enhance the private sector's role in the establishment, operation and financing of municipal facilities and infrastructure.

14.2.5.2 Policies

The major objectives of the municipal and rural affairs sector will be achieved through the following policies:

- Raising the efficiency of municipalities' information systems and updating them regularly.
- Planning for urban development with the participation of municipalities and in coordination with relevant agencies.
- Reorganizing the structure of the Ministry and affiliate agencies in order to eliminate duplication of responsibilities in conformity with the provincial system.
- Using adequate modern technology for the treatment and optimal utilization of wastewater.
- Availing of all means to ensure regular and continuous revenue streams to enable the municipalities to develop their services and maintain their infrastructure.
- Defining the most appropriate activities for privatization programs along with developing associated rules and regulations.
- Contributing to the development of sanitary techniques for the disposal and economic utilization of waste.
- Continuing to develop and improve village clusters to ensure availability and accessibility of municipal services in rural areas.
- Upgrading efficiency of Saudi manpower and enhancing Saudiization rates.

14.2.5.3 Programs

The programs of this sector cover several activities including wastewater treatment, storm water drainage, improvement of municipal facilities and services as well as development of manpower. These programs also encompass the preparation of studies needed for the development, operation, maintenance and improved performance efficiency of municipal facilities and infrastructure, preservation and protection of the environment, development of services and facilities in rural areas, completion of on-going projects and the implementation of new projects.

14.2.6 Growth Targets

The following targets are expected to be achieved during the Seventh Development Plan period:

- Preparation of field studies and surveys needed to identify the actual needs of the population in the Kingdom's various provinces.

- Establishment of 2,500 km of new water networks, replacement of 2,000 km of networks and implementation of 130,000 house connections.
- Establishment of 2,800 km of wastewater networks, 170,000 house connections for wastewater as well as treatment plants with a capacity of 450,000 cubic meters per day.
- Increasing utilization rate of treated wastewater to 100 percent.
- Asphalted 1,600 km of main municipal roads and 11,000 km of secondary municipal and rural roads.

14.3 HOUSING

14.3.1 Present Conditions

The housing sector embraces a wide range of activities such as real estate, construction, household furnishings etc. and several government and private agencies participate in the activities of this sector. While the private sector assumes the major role in constructing and furnishing housing units, the financial assistance and infrastructure provided by the government play a basic role in enabling the private sector to undertake this task.

The number of completed and ongoing housing units during the Sixth Development Plan 1415/16 - 1419/20 (1995-1999) reached about 283,300 units, bringing the cumulative total number of housing units completed by the end of 1419/20 (1999) to about 3.12 million units. Table 14.2 shows the number of housing units constructed by the Deputy Ministry for Housing Affairs, some other government agencies and the private sector, through self-finance and finance by the Real Estate Development Fund (REDF).

Table 14.2
Housing Units Completed during the Sixth Development Plan

Executing Agency	Constructed during the Sixth Development Plan	Cumulative Stock up to End of Sixth Development Plan (Units)	Structure of Stock (Percent)
Government Housing:			
- Ministry of Public Works & Housing	-	24540	0.8
- Government Agencies (for employees)	-	221000	7.1
Sub-Total	-	245540	7.9
Private Sector:			
<i>REDF Finance</i>	33,300	573,000	18.3
Self Finance	250,000	2,308,000	73.8
Sub-Total	283,300	2,881,000	92.1
Total	283,300	3,126,540	100.0

Furthermore, the Deputy Ministry of Housing handed over all implemented housing units in the various regions of the Kingdom in addition to 3,793 developed plots in Riyadh and Buraydah to the REDF for distribution to citizens who applied for housing loans.

Notwithstanding the achievements made in the field of housing, there are a number of key issues which need to be addressed during the Seventh Development Plan period.

14.3.2 Key Issues

1- REDF Loans

REDF resources will not be sufficient to meet the growing demand for loans because of problems encountered in collecting previous loan repayments. Consequently, intensive efforts will be needed during the Seventh Development Plan to overcome these constraints and to reduce the waiting time for new loans. Furthermore, cooperation with the commercial banks must be considered in order to provide soft long-term housing loans, while the adoption of the housing programs implemented by some large companies such as ARAMCO and SABIC must also be studied. In such cases, the private sector implemented housing projects for various agencies which then transferred ownership of these housing units to their employees according to specific conditions and criteria that ensure both cost recovery and reasonable profits for investors.

2- Housing Units of Middle and Low Income Citizens

Middle- and low-income citizens face difficulties in securing their own housing units from the land purchase stage to the stage of ensuring the necessary funds for building houses. What makes this situation even worse for such groups is the decline in the number of housing units implemented or financed by government agencies, in addition to the steady decline in REDF loans.

It is important that residential land plots with services and facilities be provided at affordable prices in urban areas as a first significant step towards providing middle- and low-income citizens with housing, while priority must also be given to these groups for REDF loans. Limited income groups must also be supported in other ways through a program characterized by special criteria sensitive to the basic needs of this category.

3- Construction Cost of Housing Units

The steady increase in the costs of constructing housing units is one of the major constraints facing the achievement of the housing sector's development objectives. Thus, it is necessary to select construction methods and building materials that are consistent with the local environment, in order to minimize construction and maintenance costs and ensure a longer life-span of buildings. This requires the issuance of the Saudi Building Code, preparation of specifications for local building materials, raising citizen awareness through information media and specialized publications. In addition, private engineering and consulting offices and contractors should adhere to designs, plans and building methods that are appropriate to the local environment and meet the residential needs of the Saudi family.

4- Long-Term National Strategy for Housing

The steady growth in population requires the development of a long-term national housing strategy as a basis for determining future demand for new houses. The results of the 1412/13 (1992) population census could be updated and used for the preparation of this strategy. Further field studies and surveys are also needed, such as the real estate market study currently being conducted by the D.M. for Housing Affairs. Moreover, the preparation of the housing strategy requires coordination with all agencies concerned in order to ensure the integrity and comprehensiveness of this strategy.

14.3.3 Production Efficiency

The housing sector contributes to economic growth, prosperity and social stability. During the Sixth Development Plan period, housing rental accounted for about 26 percent of household expenditure, compared with 28 percent in Germany and 31 percent in the USA. Around 60 percent of housing units in the Kingdom are owner-occupied, compared with 48 percent in Germany and 64 percent in the USA. This high level of ownership is attributed to REDF's continuous loans to citizens and the distribution of housing units and developed land by the D.M. for Housing Affairs, which provides a positive indication for improved productivity in the sector.

14.3.4 Role of the Private Sector

The private sector plays a major role in providing housing units through its participation in the construction and finance of most housing units. The sector constructed 2.9 million housing units, or about 92 percent of the total cumulative number of housing completions in the Kingdom by the end of 1419/20 (1999), of which 573,000 were financed by REDF. The expected demand for housing units during the Seventh Development Plan (about 800,000 units) will be met through private sector investments in addition to REDF loans.

During the Seventh Development Plan, the government sector will continue to support the private sector through the preparation of a national housing strategy and by undertaking its regulatory role in preparing an adequate environment for a free and efficient real estate market.

14.3.5 Development Strategy

In order to address these issues with their technical, economic and social dimensions, and to realize the Seventh Development Plan's aspirations, an integrated strategy for the development of the housing sector will include the following objectives, policies and programs:

14.3.5.1 Objectives

The major objectives of the housing sector in the Seventh Development Plan are:

- To prepare a long-term national strategy for housing.
- To provide and develop residential land in suitable locations.
- To increase the number of citizens who own houses.

- To rationalize the cost of housing in terms of planning, construction and maintenance.
- To develop the means for the private sector to contribute to the development of the housing sector.

14.3.5.2 Policies

The major objectives of the housing sector will be achieved through the following policies:

- Developing statistical information and databases for the housing sector through conducting field studies and surveys.
- Enhancing the role of the private sector in financing activity through encouraging banks and financial institutions to finance real estate loans.
- Reviewing the domestic building codes and specifications with the aim of improving the quality of housing and reducing costs.
- Increasing the supply of residential lands and providing associated infrastructure and public services, while developing measures for the distribution of residential lands.

14.3.5.3 Programs

The programs of the housing sector during the Seventh Development Plan aim at completing housing projects and related residential units, finalizing settlement and compensation aspects of housing lands, manpower development, and research and studies on the development of housing and the determination of associated needs.

14.3.6 Growth Targets

The growth targets of the housing sector in the Seventh Development Plan are as follows:

- To construct about 800,000 housing units to meet the expected demand for housing over the plan period, at an annual rate of 160,000 units, of which 125,000 units per year will meet new demand and 35,000 per year will meet replacement demand.
- To provide 57,000 REDF loans with a total value of SR 15.7 billion for constructing 70,000 housing units in the different provinces of the Kingdom.
- The private sector will finance the construction of the remaining part of the estimated demand during the Seventh Plan, i.e. 730,000 housing units at the rate of 146,000 units per year.
- To provide about 110 million square meters of residential land in order to meet the demand for housing during the Seventh Plan, or at an average annual rate of 22 million square meters. This also includes the provision of necessary facilities and infrastructure prior to the construction stage, such as water and wastewater connections as well as electricity, telephones and streets.

CHAPTER FIFTEEN

CONSERVATION AND DEVELOPMENT OF ENVIRONMENT

15. CONSERVATION AND DEVELOPMENT OF ENVIRONMENT

This chapter highlights the progress made during the Sixth Development Plan in the conservation and development of the environment. It also deals with the key issues, production efficiency, the role of the private sector, and the objectives, policies and programs of the Seventh Plan.

15.1 PRESENT CONDITIONS

A number of ministries and executive agencies are responsible for the environmental work, with its interlocking nature, such as the MOAW, the Ministry of Petroleum and Mineral Resources, MOMRA, MOH, Ministry of Information (MOI), the Royal Commission for Jubail and Yanbu, the educational institutions, and KACST. Environmental protection is the major task of the Meteorology and Environmental Protection Administration (MEPA), which is also responsible for coordination between various related agencies, monitoring environmental activities, participation in the preparation of strategies and associated policies, and presenting the viewpoints of the Kingdom on environmental issues at regional and international levels.

The National Commission for Wildlife Conservation and Development (NCWCD), established in 1406, is responsible for the conservation, protection and development of land and marine wildlife by ensuring ecological balance, as well as conducting and applying scientific research in this field.

There have been many achievements during the Sixth Development Plan period, with respect to the protection, management and improvement of the environment. In coordination with other related agencies, MEPA prepared the draft General Environmental Code in the Kingdom. It also prepared a plan for managing coastal zones to ensure ecological safety and natural balance as well as protecting against environmental pollution and deterioration, and for the sustainable utilization of natural resources. Furthermore, standards for controlling toxic and hazardous waste and for water quality have been updated.

With respect to the achievement of sustainable development and taking environmental considerations into account at all levels of planning, MEPA prepared "Agenda 21" for the entire Kingdom, which has been approved by H.M. the King. It also studied the unified code for environmental assessment and the general environmental code of the GCC, both of which have been approved by the Ministerial Committee for the Environment. MEPA also finalized the preparation of the draft cooperation agreement between the Kingdom and neighbor countries for the conservation of cloven-hoofed animals resettled in the Arabian Peninsula.

Furthermore, two of the five stages of the study on the environmental impacts resulting from the petrochemical factories in Yanbu industrial city have been finalized, while another study has commenced on the environmental impacts of power generation plants along with a project on studying and identifying liquid waste in Riyadh city.

In the field of wildlife, NCWCD prepared the draft national strategy for conservation of the major flora and fauna species. During the Sixth Development Plan period, five new

protected zones were identified with a total area of about 15,000 square km, thereby increasing to 15 the number of zones subject to the protected zones regulation, with a total area of 82,000 square km or 3.7 percent of the Kingdom's area. Areas where hunting is prohibited include the Empty Quarter and An Nufud regions. (Figure 15.1).

With respect to the development of the major wildlife species and their resettlement in their natural habitat, NCWCD used physiologies and techniques of reproduction under captivity. It also collected data on geographical distribution, prepared illustrative maps for large herbivorous and carnivorous mammals, as well as types of wildlife plants and birds and identified their natural habitats in the Saudi environment.

Notwithstanding the achievements of the concerned agencies in the field of environmental protection, there are still some key issues which should be addressed through proper policies and measures during the Seventh Development Plan period.

15.2 KEY ISSUES

1- Natural Resources

The rapid socioeconomic development over the past three decades caused some environmental problems related to the scarcity of some natural resources such as non-renewable water resources, soil and pasture. This matter requires the preparation of a national strategy for the control of desertification, as well as regulations for rationalizing water consumption, improving the soil, and protecting and expanding ranges.

2- Environmental Awareness

It is very important that the environmental awareness of citizens be enhanced with respect to the protection and maintenance of the environment, so that there will be greater understanding of the need to refrain from hunting in the protected zones, of the constrained procedures related to implementing endangered wildlife resettlement programs, and of the non-adherence to environmental protection measures by some industrial projects in urban areas. Environmental awareness helps to reduce government expenditure on protecting the environment and enhances civilized behavior of citizens. Promoting greater awareness will require the cooperation of environmental agencies through intensive media campaigns, manpower training programs, participation in symposia, conferences and workshops related to environmental activities, as well as the elaboration of the curricula pertaining to environmental protection and wildlife conservation at all levels of education.

3- Coordination between Environmental Agencies

It is very important to enhance the coordination and integration of activities of many government agencies in the environmental field, in order to eliminate the duplication of tasks and the lack of clearly identified responsibilities which can adversely affect performance efficiency, particularly with respect to the standardization of environmental criteria, specifications and regulations, and quality standards. Hence, the Seventh Development Plan will address this issue by enhancing the coordination and integration of activities of all agencies related to the environment.

Figure 15.1: Locations of Protected Zones and Areas where Hunting is Prohibited

4- Environmental Data, Information and Standards

The shortage of environmental data and information negatively affects the performance efficiency of agencies responsible for protecting and maintaining the environment and prevents the proper analysis of environmental phenomena and the establishment of criteria for addressing environmental problems resulting from natural factors. This issue calls for the provision of appropriate environmental information to all related agencies.

5- Contribution of the Private Sector to Environmental Protection

The private sector's role in environmental protection and maintenance remains limited. Measures are needed to force private establishments to abide by environmental codes, to establish environmentally friendly industries, to invest in activities providing both material and environmental benefits, and to encourage private sector participation in environmental awareness activities through the establishment of private societies "Friends of the Environment", as well as through occupational societies and environmental workshops.

15.3 EFFICIENCY

The environmental agencies made great efforts to eliminate the adverse impacts of environmental deterioration. MEPA provided environmental data and meteorological services to government and private agencies. It also improved the efficiency of its employees and expanded its awareness programs. The NCWCD doubled the areas of the protected zones under its supervision and increased the reproduction and resettlement of wildlife under captivity.

However, achievement of the Seventh Development Plan objectives will require further efforts to improve the operating efficiency of related agencies through the optimal utilization of natural resources, conservation and protection of natural resources against deterioration, enhanced awareness of environmental issues, the conducting of more studies and research, as well as the preparation of adequate plans for transferring and adapting non-polluting technologies, together with effective coordination among related agencies in both public and private sectors.

15.4 ROLE OF THE PRIVATE SECTOR

Successful environmental work depends on the integrated efforts of government agencies and the private sector. It is important, therefore, to establish appropriate measures to enhance the role of the private sector and to underscore its responsibilities to protect and maintain the environment through the following:

- Encouraging the private sector through incentives to establish industries which use non-polluting technologies.
- Taking environmental considerations into account when dealing with natural resources, particularly non-renewable resources.

- Abiding by environmental standards and codes in the implementation of development projects.
- Supporting environmental research and studies.
- Contributing to environmental awareness campaigns.
- Establishing private societies for environmental protection.

15.5 DEVELOPMENT STRATEGY

The strategy of environment conservation and development will be implemented through the following objectives, policies and programs:

15.5.1 Objectives

The major objectives in the Seventh Development Plan are as follows:

- To protect the environment against pollution and deterioration, and to control desertification.
- To maintain a pollution-free environment and improve the quality of life of citizens.
- To conserve natural resources, particularly non-renewable resources, and to achieve sustainable development in line with long-term development objectives.
- To conserve and develop wildlife, particularly endangered species.

15.5.2 Policies

The above objectives will be achieved through adoption of the following policies during the Seventh Development Plan period:

- Establishing necessary control measures for preventing violation of the environment and ensuring enforcement of environmental standards.
- Promoting environmental awareness and encouraging citizens to participate in environmental conservation and development programs.
- Reviewing and updating environmental codes and developing standards and indicators relating to air, soil and water (ground and surface) pollution, regularly reviewing these standards and developing departments related to environmental standards.
- Intensifying scientific research and studies aimed at transfer of advanced environmental technologies.
- Providing environmental data and information, and intensifying contacts with regional and international agencies to make use of global communications network technologies.
- Enhancing coordination among all government agencies responsible for the environment, in order to eliminate duplication of tasks and to reorganize the environmental sector to include all government and private agencies involved in environmental affairs.

- Improving survey and study techniques related to new and proposed protected zones and exchanging information with specialized international organizations.
- Encouraging the private sector to participate in environmental protection and conservation of natural resources and wildlife.
- Enhancing the efficiency of protected zones management, and improving the operation and maintenance of such zones while increasing their areas.
- Encouraging Saudi manpower to work in environmental activities and upgrading the skills of employees through training and scholarships.

15.5.3 Programs

The programs of this sector cover various fields of environmental protection, meteorological services, protected zones, and environmental information for enhancing the efficiency of environmental services, promoting public awareness of the importance of environment protection and wildlife conservation, and supporting and developing environmental management techniques in order to achieve sustainable development.

15.6 GROWTH TARGETS

The agencies responsible for environmental affairs will work during the Seventh Development Plan to achieve the following targets:

- Linking the agencies responsible for environmental management to an information network, and updating information on natural resources and the environment.
- Establishing “Friends of the Environment” societies in the Kingdom, with branches throughout the various regions.
- Reducing the levels of different types of environmental pollution according to international standards.
- Approving the General Environmental Code in the Kingdom.
- Preparing a national plan for wildlife conservation and development.
- Increasing the area of the protected zones to 6.8 percent of the Kingdom’s total area.
- Preparing necessary plans for controlling desertification and promoting bio-diversity.
- Adopting the coastal areas management plan.