

## CHAPTER ONE



### EXECUTIVE SUMMARY

This report consists of 10 chapters. Chapter 1 is an executive summary of the subjects covered in the successive chapters of the report. Chapter 2 addresses the concept of human development and its measurement. It describes human dimension in the context of Kingdom's sustainable development, and provides indicators for the main aspects of human development in the Kingdom. Chapter 3 reviews the health situation in the Kingdom, together with the relevant progress achieved, and discusses the main issues facing the health sector. Chapter 4 analyses the progress made in education, highlighting school enrolment ratios; the steady increase in expenditure on education; the growing role of the private sector in providing educational services; educational system efficiency, along with issues and policies pertinent to the sector. Labor and human resources are analyzed in Chapter 5, focusing on the relation between population and labor force; occupational structure; sectoral distribution of employment and analysis of labor and employment issues. Chapter 6 examines social care, as well as judicial, cultural and

religious services which play a significant role in supporting the Kingdom's human resources development endeavors. Chapter 7 discusses urban and regional development in the Kingdom, along with the efforts made to provide decent housing to citizens in the context of human development requirements. Highlights on development patterns in the various regions are also given in this chapter. Issues concerning women in the context of human development are studied in Chapter 8 from two important perspectives: education and employment. The chapter also underscores the policies being pursued to remove the obstacles encountered by women in employment and in participation in economic activity. Chapter 9 of this report addresses the interrelation between environmental protection and human development. It also places emphasis on the present environmental situation, including problem areas, issues and relevant development policies. Finally, the report considers in Chapter 10 the implications for human development policies in the Kingdom of the current trends towards an integrated-

information and knowledge-based global economy, as manifested in the accelerating pace of scientific and technological advancements.

The focus of the UNDP Human Development Report is on elaborating and refining the concept of human development and identifying its constituents in a global context, and defining the relevant measures, or indicators, and methodologies to be used for measuring progress achieved. Saudi Arabia's National Human Development Report draws on the measures and indicators identified in the international report. However, emphasis is placed in this national report on assessing the Kingdom's human development record, along with a commitment to objectivity and transparency, in order to establish a clear perspective of Saudi Arabia's development process.

The main purpose of the present report is to:

- Highlight the remarkable developments, which have taken place in the Kingdom during the past three decades and assess their positive impacts on human development and society. In this respect, the report underscores the fact that development in

the Kingdom has not only been about building roads, airports, seaports, factories, water desalination, electricity generation, telecommunication networks and plants, but equally, if not more importantly, it has been about improving the well-being of the Saudi people and enhancing their capabilities by providing them with better education and health services, a cleaner environment, etc.

- Review the present status of human development in Saudi Arabia, along with highlights of its development process with an aim to follow up and assess developments that have taken place in human development policies over the last three decades, together with the impact they have made in promoting awareness of the development process, mobilizing resources, and stimulating citizens' participation and involvement in the development process. The report is addressed primarily to the Saudi people and policy makers with the conviction that increasing awareness of the importance of human development and its implications and requirements is essential for keeping up the momentum.

The report provides an information base that can be used to compare the Kingdom's human development situation either with prevailing conditions in other countries or against criteria proposed in relevant international conferences. Indeed, such comparisons are useful as they provide an effective tool through which adequate policies can be adopted to improve current trends related to allocation of financial resources and make them consistent with the government's human development priorities.

Another aim of the present report is to help form a clear vision of the policies and measures needed to maintain the thrust of human development in the Kingdom. This will help us identify gaps in data and information, highlight areas that need to be emphasized in the future, and assess the cost-effectiveness of alternative policies.

## **Concept and Measurement of Human Development**

The concept of human development places people at the center of the development process, both as recipients of its benefits and as agents of change. It regards their welfare as the ultimate objective of the development

process. This marks a significant departure from the long-held view that economic growth is the central and driving force in development. While the new concept recognizes that economic growth is necessary for the well being of people, it does not regard it as sufficient in itself.

It is worth noting in this context that the first Human Development Report published by the United Nations Development Programme (UNDP) defines human development as a process of enlarging people's choices. This marks an essential departure from economic growth approaches because it places equal emphasis on both quality and quantity aspects of growth. In other words, a closer linkage should be prudently established between raising income level and enlargement of people's choices. This should be pursued through a well considered policy because linkage does not happen automatically.

As such, the human development approach becomes an integrated process that combines the following key components:

- Equality: provide equal opportunities to all people.
- Productivity: Optimal employment of

people's capabilities, through investment in human resources development.

- Sustainability: to pay due attention to future generations.
- Empowerment: to empower people to achieve an adequate level of individual development that allows them appropriate choices.

It should also be taken into account that the policy implications of human development are certain to vary from one country to another as some of the actions, which may constitute appropriate human development policies, can be quite unique depending on the country's social, political, economic and religious values. This is very true of Saudi Arabia where the precepts and tenets of Islam regulate all aspects of life.

The UNDP global human development report constitutes the first comprehensive attempt to measure achievements in development from a human perspective, expressed in terms of numerical indicators that permit inter-country and inter-temporal comparisons. The new measure thus introduced – the Human Development Index (HDI) – combines in one composite index indicators of health and

education, in addition to income. The HDI is intended to reflect achievements in the most basic human capabilities: living a long and healthy life, being knowledgeable and enjoying a decent standard of living.

While the concept of human development is too complex to be captured in a single figure, the HDI nevertheless, serves to provide a useful yardstick for measuring progress in human development. The index also provides an initial working tool that could be further developed and refined, and that could guide country efforts to establish relevant databases. However, it has to be noted that it is difficult to rely on the HDI as an indicator of human development disparities between various income and population groups, and between different regions, in the same country. Recognizing these difficulties, the Human Development Index has undergone many improvements and refinements since it was adopted in 1990. In this context, HDI redefines human development as "the process of enlarging people's choices within a favorable social environment in order to achieve a better life."

The general framework of people's choices

and the criteria used to measure them include the following indices, along with the human development index:

- Income Distribution Adjusted HDI.
- Gender Adjusted HDI- Equality.
- Empowerment Measure.
- Human Poverty Index.

To improve the usefulness of the HDI and related indices would require concerted efforts at the national and international levels to provide the information needed to improve their quality and to widen the scope of the measures and facilitate comparisons. The national human development reports should be of considerable help in this respect.

Measuring human development in practice has been limited to three indicators: longevity of life as measured by life expectancy at birth; educational attainment as measured by a combination of adult literacy and combined school enrolment at the primary, secondary and tertiary levels; and the standard of living as measured by real GDP per capita in US dollars (\$US) adjusted for the local cost of living using purchasing power parity (PPP).

## **Human Dimension in the Saudi Development Context**

Human development has been at the center of the Kingdom's development strategy since the inception of development planning some thirty years ago. The positive trend of dispersion of the Kingdom's development process has not only transformed the economy drastically, but has also deeply touched and transformed the lives of people. Statistics document the very rapid and profound progress that has been achieved on a very wide front including health, education, housing and the environment. In addition to the extensive network of modern roads and highways, airports and seaports, power and desalination plants and huge industrial complexes, the Kingdom is now endowed with modern hospitals, schools, universities, recreation and touristic facilities.

The steady increase in expenditure on human resources development as well as on health and social services underscores the special attention given to human development. Over the duration of the first six development plans 1390-1419H (1970-1999), expenditure on the development of human resources (general education, higher education, technical

education, training, science and technology and information) rose from 20.6 percent of total expenditure on development sectors during the first five-year plan to 51.5 percent in the sixth plan. During the same period expenditure on social and health services (healthcare; social, youth and information services; and religious, judicial and voluntary services) more than doubled to reach 20.8 percent of expenditure on development sectors.

Saudi Arabia is still categorized, under the Global Human Development Report, among the countries with medium development level. However, the relevant UNDP calculations indicate that a steady and tangible improvement has been made in the Kingdom's HDI. This greatly increases the prospects of Saudi Arabia being included among the countries with a high human development level in the course of the next phase of the Kingdom's development process.

## **Health and Human Development**

The dramatic improvements in the Kingdom's health situation over the last three decades have been made possible by the establishment

of an extensive and high quality health infrastructure. Massive investments were made by both the Government and the private sector, but mainly by the Government. The result is a near universal and free access to health services that has contributed significantly to improving the quality of life by reducing the incidence of diseases and enabling people to live longer and healthier lives.

The period spanning the Kingdom's development plans 1390-1422H (1970-2002) saw the total number of hospitals increase from 74 to 331, the number of health centers from 591 to 3,627, and the number of hospital beds from 9,039 to 47,242 beds. The most dramatic rise, however, has occurred in medical personnel where the number of physicians increased from 1,172 in 1390H (1970) to 32,683 physicians in 1422H (2002); the number of nursing staff from 3,261 to 68,097; and the number of para-medical personnel, including pharmacists, from 1,741 to 40,475 over the same period.

Improvements in the health of Saudi citizens are reflected in the sharp reduction in the incidence of communicable diseases, in infant

and under-five mortality rates, and in the increase in the number of births assisted by trained health personnel as well as increased life expectancy. For example, the incidence of diphtheria and poliomyelitis per 100,000 of the population fell from 0.1 and 0.2 respectively in 1405H (1985) to 0 in 1422H (2002). Over the same period, the incidence of hepatitis B, mumps and measles per 100,000 of the population decreased from 26.8 to 18.54, from 75 to 4.51, and from 57.1 to 2.64, respectively. Moreover, over 90 percent of births today are attended by trained health personnel as against 78 percent in the mid-eighties. The spectacular reduction in infant and under-five mortality rates, from 118 per 1,000 live births in 1390H (1970) to 19.1 in 1420H (2000), and from 185 to 21.5, respectively, exceeds in many cases the achievements in the Arab States and developing countries as a whole; though they are still considerably short of the rates achieved in the OECD countries.

International statistics also show Saudi Arabia to be among the three countries in the world that achieved the largest increment in life expectancy. Today, over 83 percent of Saudis can expect to live longer than 60 years.

These favorable trends in the indicators of the health of the Saudi population are reflected in the greatly improved life expectancy at birth, which has increased from an average of 53.9 years in 1390-1395H (1970-1975) to 70.9 years in 1415-1420H (1995-2000)<sup>(1)</sup>. The Kingdom's record in this respect exceeds that of the Arab States and developing countries in many respects, and is not far behind the achievement of the OECD European member states.

The Kingdom's impressive health record notwithstanding, a number of challenges have emerged. The Saudi Government is keen to address these challenges through adoption of appropriate and effective solutions. First, there is the expected rapid increase in demand for health services in general, and quality health services in particular. This is a result of rapid population growth; growing health awareness; emergence of new health problems and needs associated with new lifestyles; and the increase in the number of old people and in work-related injuries accompanying industrialization.

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(1) UNDP, Human Development Report, 2002, (Human Development Indicators, Table 8).

The second issue relates to escalating health care costs associated with the system of free medical care in public facilities. This is a result of changing disease pattern in the direction of more costly treatments (cancer, kidney transplants, traffic injuries, etc.); the rising costs associated with non-Saudi manpower, and the wide geographical dispersion of the population, given the commitment to provide adequate health services to all citizens irrespective of where they live.

The third issue relates to reduced reliance on non-Saudi manpower, through adoption of appropriate Saudization policies, in order to cater for growing demand on health services, and to meet manpower replacement requirements. The health sector will also seek to strengthen rapport between health workers and patients and will ensure that the necessary conditions are in place to establish the right diagnosis for successful treatment.

The fourth issue concerns the need to improve and upgrade the quality of data and information, and address concerns for accuracy and transparency, in order to contribute to rationalization of the vast

outlays on the health sector. Such data ought to shed more light on the private sector's role in the provision of health services; the distribution of health expenditures between central and local government agencies, between rural and urban areas, and between curative and preventive healthcare; and the extent these services effectively reach vulnerable and disadvantaged groups in society, particularly women, children, elderly people, the handicapped and the chronically-ill citizens. Decentralized spending can be very effective as it can better respond to general needs, while preventive care benefits a broader segment of society. Similarly, knowledge of regional disparities in the provision of healthcare services can serve to improve the allocation and distribution of resources based on actual needs.

In the context of coping with these issues, a great deal of significance is assigned to the private sector to assume a larger role in providing health services. Resolution of the manpower problem, however, will depend ultimately on providing the kind of incentives that would attract increasing numbers of Saudi nationals to the medical and related professions.



## **Education and Human Development**

The priority given to education in the Kingdom is reflected in the sharp rise in the number of students at all levels from about 547 thousand in 1390H (1970) to over 5 million in 1422H (2002) studying in 24748 boys' and girls' schools, 8 universities, 78 girls colleges, 17 technical colleges, 18 teacher training colleges and 68 technical education and vocational training institutes and centers. Significant progress is also abundantly evident in other indicators educational development.

Two of the most important elements in advancing the cause of human development in the Kingdom over the past three decades have been the dramatic rise in school enrolment and the concomitant reduction in adult illiteracy.

Literacy rate for Saudis aged ten years and above, has improved from 64.3 percent only in 1394H (1974) to 80.1 percent in 1420 H (2000). The rate continues to rise due to the dual effect of increased enrolment ratio and the shift in the literacy profile of the population in favor of education. This is

further explained by the gradually declining ratio of adults who missed out on education at the inception of the Kingdom's massive education drive. This is clearly evident in the literacy profile of youth, which shows that literacy among the population in the 15–24 years age group has almost reached 100 percent for both males and females.

One objective of human resources development has been to achieve harmony between the contents of educational/training attainment on the one hand, and the fast changing labor market requirements on the other hand; and to develop the skills needed in today's world where the economy is increasingly driven by competition, information, and knowledge, particularly in technical areas. The dramatic fall in illiteracy was a natural outcome of the speed at which enrolment at all levels has been expanding. The combined primary, secondary and tertiary level gross enrolment ratio has more than doubled, rising from 33.9 percent in 1395H (1975) to 85.8 percent in 1420H (2000). Perhaps the most striking development in this respect is the increase in female enrolment ratios at the secondary and tertiary levels.

The priority given to making education available to all Saudi citizens is reflected in the share of GDP devoted to education, which has increased by over three-folds over the last thirty years, rising from 3.5 percent in 1390H (1970) to 9.8 percent in 1422H (2002). In terms of budgetary allocations, more than one-half of all actual expenditures on development sectors during the Sixth Plan period 1415-1419H (1994-1999) went to education.

The role of the private sector in the provision of education services has greatly expanded in recent years in response to continued government encouragement. The Seventh Plan expects that the private sector will account for ten percent of total enrolment in the general education system by the end of the Plan period 1424-1425H (2004). At the higher education level, the Plan envisages the establishment of additional private colleges as well as the organization of training courses for graduates in conformity with labor market needs. For this policy direction to be effective, the capacity of the Government to set adequate educational standards must be enhanced considerably.

Significant reduction in the proportion of repeaters has helped reduce the gap between actual years spent and the number of years set for completion of each educational stage. Moreover, educational loss resulting from the dropout rates is an area where efforts are underway to implement the necessary elements for further development.

The rapid growth in the number of secondary stage graduates is a major challenge with far reaching economic and social implications. Effective policies and measures should be developed to absorb these graduates in higher education and/or productive employment. It is therefore necessary to continue to expand absorptive capacity and improve internal efficiency of higher education institutions. This will satisfy growing demand and meet the development needs for their graduates, particularly in science, technology and medical disciplines. There is also a need to expand the range of technical education facilities, through which an adequate supply of skilled and productive manpower, other than higher education graduates, can be provided.

Currently, about two-thirds of all higher

education students graduate in humanities and in fields that do not match labor market needs. The problem is particularly pressing in the case of female graduates. The Kingdom is therefore keen to take further steps - such as review of curricula and development of special training programs designed in cooperation with the private sector – in order to ensure better employment prospects for Saudi graduates. Efforts in this regard should conform to the needs of the economy, which is increasingly driven by scientific and technical knowledge.

### **Labor and Human Resources**

Two salient issues related to labor and employment situation in the Kingdom stand out: the need to raise participation rate in economic activities, and to reduce dependence on expatriate labor.

While the participation rate for the Kingdom's male population is comparable to the rates in other countries, Saudi Arabia's relatively low rate of overall manpower participation is attributed to the higher proportion of active population enrolled in secondary and tertiary stages of education, along with the higher proportion of house-wives.

Saudi female participation in the labor force reaches its peak level of about 21 percent in the age group 25 – 34 years. By contrast, however, participation rates among lower and higher age groups are relatively lower. On the other hand, the participation rate has been quite high among female holders of teachers' training diplomas, to the tune of some 78.5 percent. It should also be noted that Saudi female participation in agricultural and other traditional activities in rural areas goes unreported in official statistics. However, continued efforts to create suitable job opportunities for women, coupled with the increasing number of educated females, and the rising cost of living, raise the expectation that the number of working women will continue to rise along with female participation rate in the labor market.

Successive development plans have placed a great deal of emphasis on labor market issues, particularly with respect to dependence of the economy on expatriate labor. During the early stages of planning, dependence on expatriate labor was necessary, to support the extensive efforts then underway to build the Kingdom's high quality infrastructure network. However, the construction stage of infrastructure is almost completed, including educational

facilities, and Saudi graduates are entering the labor market in increasing numbers. It has become apparent, therefore, that former policies need to be adjusted and updated. As a result, the concept of Saudization of jobs figures prominently in the Kingdom's labor market policies.

While the pattern varies in terms of scale and trend between the public and private sectors, Saudization policy measures have made an impact since they were first initiated at the beginning of the fourth national development plan in 1405H (1985). In view of the implications of these measures, the share of Saudi labor in total employment increased from 36.4 percent to 44.9 percent in 1422H (2002). In an effort to accelerate Saudization in the private sector, Saudi Arabia's manpower policies are increasingly shifting from focusing on the public sector, seeking instead to respond to the requirements of the private sector. Policies in this respect have gained further momentum in the light of the privatization process, which has become an integral part of the Kingdom's development strategy.

The situation, therefore, calls for closer

conformity between manpower plans and policies on the one hand, and the private sector's requirement for skilled manpower on the other hand. Further consultations are therefore required between policy makers and the private sector.

It is worth mentioning, in this context, that the structural features of unemployment are partly attributed to the mismatch between the output of education and training systems and labor market requirements, particularly in the private sector.

Following are the most important features of the Saudi labor market, which have a bearing on manpower policies in many different ways:

*First:* Gender-related labor force participation rates: while gender ratio of the Kingdom's overall population approaches parity level, gender-related labor force ratio, by contrast, amounts to 1:6.2 .

*Second:* Institutional distribution of overall manpower indicates that the private sector is the main provider of jobs in the Kingdom, with a share of 85.3 percent of the total in 1420H (2000). Furthermore, disparities exist

in terms of benefits and work conditions between the public and private sectors. These disparities are bound to affect future manpower policies, particularly in view of the fact that employment in the public sector approaches saturation point.

*Third:* Employment by sector reveals that the services sectors account for a significant share of 62.2 percent in total employment. Community and personal services, as well as government services make up the largest share of employment within the services sectors. Construction sector accounts for the highest share of employment to the tune of 51.4 percent within the producing sectors. By contrast, the share of industry in total employment in the production sectors amounts to 22.7 percent, which is relatively low.

*Fourth:* The sectoral distribution of employment by nationality and by sector, underscores the fact that efforts are needed to redress imbalances in the labor market.

Generally speaking, the sectoral profile of employment of Saudi nationals tips the balance in favor of services sectors, due to

their high share in the government services sector. Non-Saudis, however, appear to be about equally distributed in terms of their overall employment between services sectors (46.5 percent) and the producing sectors (48.3 percent).

Based on the above, the share of Saudi nationals in total employment in the services sectors amounts to 51.3 percent, compared to 19 percent in the production sectors. As a share of total employment in the private sector, Saudi citizens make up about 38.9 percent, compared to about 83.3 percent in the oil and gas sector and 79.8 percent in the government sector.

### **Social Care, Cultural, Judicial and Religious Services**

To ensure the economic and social well being of its citizens, the Kingdom has established a broad system of social care and assistance, including both financial and non-financial support. This support is provided through specialized agencies and tailored to the circumstances of citizens in need. However, as result of strong dependence on family network, cases of social isolation – a major cause of many social as well as physical

disorders – are also limited compared to other countries. Thanks to this dual system, where family support is complemented by government institutionalized social care, citizen's well-being is assured.

Other government agencies provide youth welfare services including sports, cultural and information services. Religious agencies provide services intended to deepen the values of virtue and enable citizens to perform their religious duties smoothly.

Pension and risk insurance to both government sector workers and private sector employees are provided by the General Organization for Social Insurance (GOSI). Compensation payments in the form of pensions have increased from SR 705.8 million in 1414H (1994) to SR 1631 million in 1422H (2002); and from SR 129 million to SR 188.5 million for occupational hazards compensation. Over the same period, total social security disbursements rose from SR 2,695.2 million to SR 2,983.4 million, including SR 410.2 million in relief assistance and SR 2,573.2 million in regular assistance.

Due to the special demographic structure of Saudi Arabia, with a large proportion of the population being very young, contributions to GOSI by insured workers had exceeded payments to retirees each year. As a result, GOSI has been running significant net operational surpluses for many years. But as the Kingdom's high rate of population growth is expected to slow down in the coming decades and the number of retirees to grow rapidly, these operational surpluses will fall, and possibly turn negative, unless funds are invested in high-yielding assets or an increase in employee contributions is considered.

## **Urban and Regional Development and Housing**

More than three-fifths of the population in Saudi Arabia now live in major cities, with more than two-fifths living in cities of more than 750 thousand inhabitants. Saudi cities are generally well organized, and enjoy relatively integrated transportation network, thanks to the adoption of effective urban development strategies for all major cities at an early stage. This has resulted in orderly urban development and expansion of most basic services in line with the expansion of cities and their population.

Principalities and municipalities face the dual challenge of having to meet the increasing demand for their services due to population growth and urban expansion, along with the need to extend services to all villages in the Kingdom, and to enable the private sector to play an increasing role in providing additional facilities as well as operation and maintenance of existing ones.

In order to sustain the high quality of life achieved in cities and towns in the future, it may be better to halt the expansion in places which lack economic potential and viability. Human settlement policies could focus on the consolidation of the existing settlement structure, and on continued efforts to improve the standard of living in rural areas. It is also important to limit migration to the metropolis by improving living conditions in rural areas, especially creation of employment opportunities.

Over the past decades, both the Saudi Government and the private sector have made extensive efforts in assisting citizens to obtain adequate housing in various forms. Assuming a key role in this respect, the Government has sought to provide and distribute free housing

schemes and land plots throughout the country. The Real Estate Development Fund (REDF), established by the government as a development bank, provides housing loans at very favorable terms. The private sector undertakes a major role in the construction of housing units financed through loans provided by government institutions. The high level of ownership of housing units among Saudi citizens testifies to the positive outcome of the government's housing policies.

Several key issues remain in the area of housing, including: helping middle and low-income citizens to secure their own housing; ensuring adequate resources to meet the growing demand for REDF loans; and overcoming the constraints resulting from the steady rise in construction costs. There is also a pressing need for an accurate assessment of housing requirements on which to base policies and assess their financial implications.

## **Women and Human Development**

The benefits accruing to women from development are particularly evident in their life expectancy and education indicators. Female life expectancy at birth reached 72.7

years in 1420H (2000) compared with 70.3 years for males.<sup>(2)</sup> Female combined enrolment ratios increased from 36 percent in 1395H (1975) to 94.5 percent in 1420H (2000) for primary education; from 4.9 percent to 88.2 percent for secondary education; and from 2.5 percent to 58.0 percent for tertiary education (Table 8-2). These increases in female enrolment ratios are among the highest in the world.

Despite the relatively late start in expansion of girls' education, the gender gap in enrolment in educational institutions has been narrowing rapidly. One significant achievement in this respect is the considerable increase in female enrolment in the universities and higher education institutions (including female teachers training colleges). As a result of this increase, gender ratio in enrolment in higher education institutions has now shifted in favor of females, to the tune of 1:1.4 in 1422H (2002).

Significant improvement has been achieved in life expectancy at birth and educational attainment indicators of female population.

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(2) UNDP, Human Development Report, 2002 (Human Development Indicators, Table 21).

However, an accurate assessment of female participation in the national economy and overall manpower is somehow difficult to obtain, mainly due to lack of appropriate technical methods that can be applied to measure work performed by women, particularly in traditional small-scale units. However, and as earlier indicated, participation rate of educated females is growing considerably. In year 2000 female participation rate amounted to 52.3 percent for holders of post-secondary school diplomas and 35.1 for holders of university degrees.

Efforts are being made by the government to develop policies geared towards promotion of women's employment with an aim to create further areas where gainful jobs can be provided to Saudi women.

Thus, suitable employment of Saudi women is presently concentrated in the health and educational sectors. In fact, 90 percent of the total female workforce are employed in the health and educational institutions in both the government and private sectors, with the majority of them in the government sector, where women account for about 35 percent of total labor force employed.



However, progress is gaining momentum in the attitude of families and policy-makers as regards female work. Motivated by developmental, economic and social considerations, this attitude seeks to strengthen women's dual role both within and away from home, and to increase female participation in economic activities. In fact, policies designed to enhance overall manpower participation are further enhanced through increased female participation. Within this framework, several policies are being adopted, including the following:

- 1- Increase suitable job opportunities through Saudization of female jobs in some of the most appropriate areas of work; encourage part-time and home-based employment, and increase female participation in ownership of business enterprises.
- 2- Facilitate access for women to labor market information and counseling services.
- 3- Employ information technology, including e-commerce, to provide suitable job opportunities for women.

### **Protection of the Environment**

Rapid economic and social development is

bound to produce new challenges to the environment, while exacerbating some of the existing ones. The major challenges have come from rapid urbanization, intensive use of limited resources, notably water, new consumption patterns and life styles, and increased industrialization.

Most significant among these challenges is the consumption of the Kingdom's limited water resources. Water use in agriculture has risen to some 89 percent of total water demand in 2002, particularly as agricultural production of some crops has outstripped domestic needs.

In response, the Kingdom has undertaken a major review of its agricultural policy, with an aim to reduce subsidies to water-intensive crops, apply water-efficient technologies, and to encourage switching over to water-efficient crops.

Fresh water supplies have also been developed at a rapid pace to meet the needs of a fast growing population, sprawling urban centers and improved standards of living. Though still relatively moderate, the demand for water by the industrial sector has been

increasing rapidly.

Recognizing the critical importance of the water resources early in its development, the Kingdom has accorded water conservation highest priority in its development plans. The Seventh Plan, for example, calls for making water a principal cost factor in the cost-benefit analysis of projects.

The Kingdom has adopted since 1415H (1995) a graduated tariff for water consumption aimed at promoting conservation and rational use. Ground water exploitation is also being rationalized especially for utilization in agriculture, while informational campaigns are frequently conducted on the national importance of conserving water.

In spite of the efforts undertaken by the Government and private organizations directed at encouraging the rational use and conservation of water in the domestic sectors, the high levels of consumption in the cities calls for further policy initiatives. Specifically, improving network management and control should contribute greatly to conservation of water consumption.

Besides water scarcity, important issues of air and water pollution, solid waste, and safeguarding bio-diversity must also be addressed.

Industry and transport are the primary sources of air pollution in Saudi Arabia. The rationalization of gasoline and electricity prices is among the most important policies recently adopted to reduce the rate of air pollutants' emissions. Another measure has been the recent conversion to lead-free gasoline. Furthermore, the government's efforts to improve efficiency in the electricity and desalination sectors should also result in reduced emissions by these two sectors. However, further policy measures should be enforced including: stricter application of existing air emission standards and widening their scope to govern all polluting activities; strengthening the enforcement of environmental codes and standards and making them more effective; improving vehicle inspection for harmful emissions; and reducing the sulfur content of petroleum products.

Sewage is the primary source of water pollutants in Saudi Arabia, reflecting the fact that a relatively large portion of municipal

wastewater is not connected as yet to sewage treatment plants. The industrial sector is another source of water pollution, specifically industries located in industrial zones not connected to waste water treatment plants. Another source of water pollution is the large number of ships calling on Saudi ports. Deliberate dumping of petroleum products in the Gulf water is endangering the natural habitat, while industrial waste released into the water is increasingly endangering the marine ecology.

One main remedy for water pollution obviously lies in increasing the number of residential units and other industrial and business enterprises connected to the public sewage and drainage network. Also, the availability and capacity of water treatment plants must be increased to handle not only networked effluents but also to treat sewage collected from septic tanks and other sources.

The main constituents of solid waste in Saudi Arabia are municipal solid waste, construction waste, hospital waste and industrial waste.

The environmental pressures generated by solid waste can be substantially mitigated

through recycling facilities at all factories operating throughout the Kingdom. The recycling industry, however, has to cope with the cost of sorting, generally low product quality and a relatively higher cost of recycled products, in addition to general consumers, resistance to the use of recycled products.

Preserving the diversity of flora and fauna has been accorded high priority since the early stages of national development planning. As a result, sixteen zones with a total area of 83,456.5 square kilometers have been established as protected national reserves. Hunting has also been prohibited in the Empty Quarter and the Nufud Regions. Among the protected areas are a number of coastal zones, a habitat for various species including the coral reefs. Also a number of previously endangered species have been bred in captivity and successfully re-introduced to their natural habitat, of which the Reem Gazelle (deer) and the Arabian Maha (oryx) are best known.

Environmental pressures are expected to multiply in the future due to continued economic growth in general, and growth in demand for energy, desalinated water,

transport and other polluting activities. The associated risks to public health and the environment can be high if policy responses do not rise to the level of the challenge.

The formulation and adoption of general environmental codes and standards are considered to be a major step in the right direction; but in order to achieve their objectives in a more effective way, these codes and standards should be expanded to cover all polluting activities. Close monitoring is also important in order to verify adherence to, and enforcement of, these codes and standards. In fact, some positive steps have already been taken in this regard, including the draft “Code of Standards for Control of Hazardous Waste”; a “National Strategy for Health and Environment”; and a draft “Work program and Guidelines for Disposing of Medical Waste” have been prepared and submitted to the Ministerial Committee on the Environment for approval. In addition, a comprehensive “National Water Plan” is under preparation.

It is worth noting in this context that environmental-friendly industries tend to employ modern technologies, generate high

value added and contribute to economic diversification which is a key strategic direction of the Kingdom's development. This further underscores the significance of adherence to environmental codes and standards.

### **Future Vision: Dimensions and Challenges**

Current trends at the national and international levels call for taking advantage of new opportunities and respond to emerging challenges resulting from the ongoing transition to an integrated information – and knowledge – driven global economy, which is based on science and technology. This transition requires far-reaching revisions in education curricula, job training practices and other human development policies to upgrade individuals' productive abilities. Since information and knowledge are inseparably linked to human development, the evolving trends in the global economy will necessitate a stronger focus on human development in the future.

Within this context, the move towards a knowledge-driven economy is a major theme of the future vision for the Saudi economy.

The underpinnings of this drive will be to continue the efforts and initiatives of the state and the private sector, and affirm the individual's self-reliance and release his energies for the purpose of developing himself and society. This implies further consolidating the private sector's ability to assume a leading role in the Kingdom's development, including its responsibilities to contribute to human development. Concomitantly, the role of the Government in economic management could increasingly facilitate in developing knowledge and technology for application in production and services activities, establishing rules and regulations designed to stimulate private sector's economic activity, crisis management, creation of social security network to protect individuals, and the provision of services that cannot be delivered efficiently through market mechanism. Raising the ability of individuals and private firms to adapt and respond to fluctuations in socio-economic circumstances will have to be a central issue in formulation of future policy.

It is also necessary to encourage the ability to respond efficiently to the constant flow of knowledge and innovation in an increasingly

competitive environment. In fact, this constitutes a prerequisite for individual advancement and success, as well as for corporate profit in the global economy. This, in turn, will require a social framework, which nurtures and encourages individual initiatives and creativity of people, firms and organizations, while maintaining the Kingdom's religious and traditional values. To realize this, concepts of education and practical training for employment will have to change. Public investment should be directed towards sectors with high knowledge and technology intensity, accompanied with policy emphasis aimed at attracting private investment in these sectors through provision of appropriate economic and regulatory incentives.

The main challenge facing the Kingdom is to ensure educational excellence and equip its young people with skills needed to enable them to find gainful jobs in an increasingly integrated and competitive global economy. To meet these challenges, Saudi Arabia is making intensive efforts to improve the quality of education with particular emphasis on nurturing the creative and innovative spirit in students, while continuing to expand the

capacity of educational institutions to cope with population growth. The absorptive capacity of the Kingdom's technical education and vocational training facilities must also be expanded and the standard of instruction should be raised.

Another issue facing the Kingdom is to respond to other challenges in the labor and employment market. In particular, to remove the difficulties that job seekers experience when seeking employment and the competition posed by foreign labor. In the same vein, efforts should be made to stimulate women's role in the economy, and develop mechanisms for creating more productive job opportunities.

The greatest challenge, however, comes from the rapid growth in population, which implies distribution of the development benefits over a greater population. This implies increase in demand for education and health services, greater employment, as well as an increased pressure on basic infrastructure facilities and the environment.

## CHAPTER TWO



# THE CONCEPT AND MEASUREMENT OF HUMAN DEVELOPMENT

This chapter deals with the concept and definition of human development. It addresses the essential aspects of human development and methods of measurement. The Kingdom's development process and the relevant challenges are also reviewed in this chapter and indicators used to measure progress achieved as regards increased life expectancy at birth, increased income and better educational attainment are highlighted.

### The Concept of Human Development

For a long time, economic thought has embraced people as elements in both the production and consumption processes. Human resource development continued to receive due attention from Adam Smith, neo-classical economists, and later by proponents of "human capital," a theory espoused by development economists.

Several factors have led to increased focus on human development and its measurement. Key among these has been the fact that average per capita income and GDP growth

rates cannot be relied upon as indicators that could be applied for accurate measurement of the achievements of development.

In this context, preoccupation with economic development has traditionally focused on economic growth as the central and driving force in the process of development, in the belief that growth by itself was sufficient to ensure the well-being of people, to preserve and protect the environment and the cultural heritage of mankind. This has been the case irrespective of the development models adopted, which varied between the two extremes of centrally planned economies and the free market-based economic systems.

The United Nations Development Programme began publishing its annual global Human Development Report in 1410H (1990). Since then, several countries have begun to publish their own national human development reports. This reflects increased attention to human development, not only through publication of national reports but also through several symposiums and conferences,

such as the Cairo Conference on Human Development held in 1413H (1993).

### **Definition of Human Development**

According to the United Nations Development Programme (UNDP), Human development may be defined as “a process of enlarging people’s choices.” At all levels of development, the three essential choices for people are, to live a long and healthy life, to acquire better knowledge and to have access to resources needed for a decent standard of living. If these essential choices are not available, many other opportunities to improve the quality of life will remain inaccessible.

Human development has two dimensions: acquiring human capabilities and the use people made of these acquired capabilities for productive, leisure and other purposes. The benefits of human development go far beyond the expansion of income and wealth accumulation because people constitute the very essence of human development. A major difference between economic growth and human development is that the former focuses on the enlargement of one option (income or product), while the focus of the latter is on

enlarging all human options. In other words, education, health, clean environment and material well being do not necessarily depend on income. Thus, the options available for improving people’s lives are influenced by the quality of economic growth in its wider sense, and the impact is by no means confined to quantitative aspects of such growth.

A distinction can also be drawn between human resources development and human development. The former focuses on the production aspect and as such deals with people as a factor of production like material capital and natural resources. Thus, the end goal of investment in human capital, in terms of health, education, nutrition and training, is to boost production and generate additional income. On the other hand, human development is based on a wider and more comprehensive concept which includes two major aspects. The first one focuses on developing human capabilities through investing in education, health, nutrition and training. The second concept involves full utilization of these capabilities for the benefit of people in terms of increased production and income, enjoying a long and healthy life, acquiring knowledge, enjoying leisure time



## What is Human Development?

### Box 2.1

Human development is a process of enlarging people's choices. In principle, these choices can be infinite and change over time. But at all levels of development, the three essential choices for people are to lead a long and healthy life, to acquire knowledge and to have access to resources needed for a decent standard of living. If these essential choices are not available, many other opportunities will remain inaccessible.

Human development has two dimensions: the formation of human capabilities – such as improved health, knowledge and skills – and the use people make of these acquired

capabilities – for leisure, productive purposes or being active in cultural, social or political affairs. If the scales of human development do not finely balance the two sides, considerable human frustration may result.

According to this concept of human development, income is clearly only one option people would like to have, albeit an important option but it is not the totality of their lives. Therefore, development must be more than just the expansion of income and wealth. It must focus on the human being.

*Source: UNDP, Human Development Report 1410H (1990).*

and participating in social and cultural activities.

## Components of Human Development

The UNDP defines the components of human development as involving four basic elements:

*Equality:* Defined as equal access to opportunities. This concept implies the existence of competitive markets and competitors with equal access to productive assets and knowledge.

*Productivity:* Human development does not

run counter to the theory of economic growth.

It is rather dependent on the contention that economic growth and improved productivity can be achieved through development of human resources and creation of a conducive environment where people can make use of their capabilities optimally. In the same vein, adequate focus is placed on the quality aspect of growth, rather than exclusive emphasis on its quantitative aspect.

*Sustainability:* To ensure sustainability of choices in order to accommodate the needs of future generations.

*Empowerment:* Empowerment and particip-

ation imply provision of an adequate social environment in which people participate for achievement of a better life.

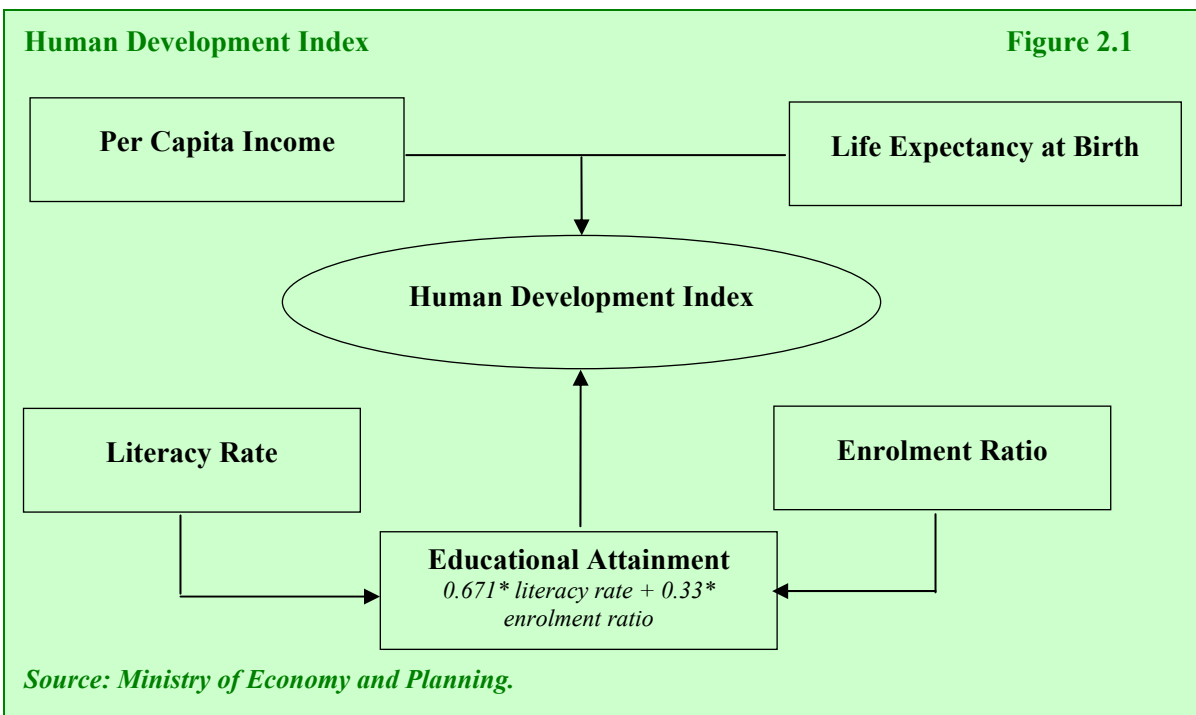
Thus, the concept of human development, in line with its focus on enabling people to enjoy a better life as the ultimate goal of human endeavor, highlights that this goal cannot be achieved solely through improvements in income or material well-being. The concept further emphasizes the inter-dependence between the key components of human well-being: without adequate income, many health and education services may not be accessible; and without a good education rewarding jobs and income opportunities may not be available to an individual. Therefore, these components of human development must be treated within a comprehensive framework. And while their evaluation by people may change overtime and differ between countries and even groups within the same country, the basic components of human development - income, education and health - are nevertheless considered essential at all levels of development. Furthermore, if these three essential choices or ingredients were not available, other opportunities, which are also important for human well-being, would

remain inaccessible. The expansion of choices in the areas of education, income and health not only provides necessary conditions for a better material life, but also paves the way for the creation of a suitable environment for people's spiritual advancement and creativity.

The broad scope of the prerequisites for human development as outlined above raises an important issue as to their applicability to individual countries. Their policy implications are certain to vary from one country to another as what constitutes appropriate some of the human development policy is likely to be unique to each individual country and will be influenced by its religious, cultural, social, political and economic values.

### **Measuring Human Development**

The annual global Human Development Report constitutes the first comprehensive and systematic attempt to measure achievements in development from a human perspective, expressed in terms of numerical indicators that permit inter-country and inter-temporal comparisons. No less significant has been the report's contribution to enriching the concept and in giving it a worldwide dissemination.



The mere idea of development embraces the significance of measurement in policy implementation, planning, setting of targets as well as evaluation of the progress and achievements made. As an outcome of considerable changes in the conceptual framework of development and the efforts made to improve measurement, development indicators have also experienced important parallel developments. Obviously, most indicators and measures such as economic growth indicators, social indicators, composite indicators and the Human Development Index have followed an approximately similar pattern.

Human development reports include various indicators covering several aspects of human development. However, data limitation and methodology problems encountered in combining a large number of indicators in one index, have confined the human development index to three indicators only:

- Life expectancy at birth (longevity).
- Educational attainment.
- Per Capita Real Income.

Since it was first introduced in 1410H (1990), the Human Development Index has undergone successive refinements and improvements, resulting in Human

Development Index adjusted according to income-distribution equality, empowerment, and human poverty. The Human Development Report has therefore proven its global reputation in its effectiveness in monitoring a country's development from a human perspective.

Another more significant argument for global support to Human Development Report and Human Development Index, is the fact that it provides a world-wide framework for comparisons on the on-going response to challenges of human development. These comparisons have, in fact, led to considerable improvements in successive reports as regards the number of countries covered, in-depth analysis of country data, as well as report structure and adopted technical methods.

Following publication of the Human Development Report, national human development reports were prepared in several countries, including many Arab states.

The Human Development Report demonstrated the fact that the concept of human development is far more comprehensive than could be expressed by

any number of quantitative indicators.

## **The Human Dimension in the Development Context**

### ***Economic and Human Development in the Saudi Experience:***

While it may be a foregone conclusion that successful economic development is indeed a prerequisite for the improvement of the human condition, and achievement of the ultimate objective of development: to improve people's lives and make these lives meaningful and enjoyable, with special attention to the needs of the disadvantaged and vulnerable groups in society so as not to perpetuate their marginal status and lack of opportunities.

Ideally, economic growth and human development should proceed hand-in-hand, being mutually reinforcing processes. But even with the proper vision, countries with limited resources tend to give precedence to economic development over human development, presumably to generate the resources needed to improve human conditions, subsequently causing human development to lag behind considerably.

Being a major oil producer and exporter, the Kingdom of Saudi Arabia has benefited from its oil resources – the instability in oil prices and revenues notwithstanding. The large financial resources that became available as a result enabled the Kingdom of Saudi Arabia to pursue simultaneously economic and human development in concert with one another. Nevertheless, the Kingdom accorded greater emphasis to the development of infrastructure and human resources in order to establish adequate conditions needed for sustainable economic growth and human development.

The fact that oil is a depletable resource, explains the emphasis of development policy in the Kingdom on economic diversification and human development to transform the oil wealth into sustainable human and productive assets. Hence, the pursuit of fundamental improvements in the well-being of the Saudi people has been proceeding in conjunction with the process of economic transformation of the country, since it is an integral part of this process and vital to its success. Emphasis has been placed on economic diversification due to its significance to supporting the national economy and in protecting it against

the adverse impacts of sharp fluctuations of international oil prices.

Other main strategic objectives of development in the Kingdom include provision of a favorable environment for the activities of the private sector and enhancing the Kingdom's position within the global economy (Box 2.2).

### **Planning and Human Development in Saudi Arabia**

Human development has been at the core of the Kingdom's development strategy from the very beginning and has indeed been increasing importance and attention.

The comprehensive development witnessed in the Kingdom of Saudi Arabia over the last three decades – despite the sharp fluctuations in oil prices and political turbulence and conflict in the region – has not only transformed the economy drastically, but has also deeply touched and improved the lives of people. It has raised their living standards and improved the quality of their lives. Statistics document the very rapid progress that has been achieved in health, education, housing and other services. In addition to the extensive

network of roads, communications and highways, airports and seaports, power and desalination plants and huge industrial complexes, the Kingdom is now endowed with modern hospitals, schools and universities and modern recreational facilities.<sup>(3)</sup>

This remarkable progress has been realized in the context of successive five-year

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(3) There are some other positive aspects of Saudi development that deserve special mention and recognition. For example, the very rapid pace of urban growth in all of the Kingdom's major cities was realized early according to a consistent urban planning approach, thus avoiding chaotic growth that is common in most megalopolises of the world.

Technology has greatly contributed to the improvement of living conditions and opportunities of the Saudi people, particularly with respect to access of information and culture, mainly through transmission of TV programs in Arabic and also through satellite, and recently through internet.

Technological advancement in the field of communication is bound to have a great impact on an environment characterized by vast areas and a sparse population, such as that of the Kingdom.

Information technology also offers opportunities to Saudi women and youth through a model of economic development that is compatible with their aspirations and the traditions and values of the Kingdom.

development plans starting in 1390 H (1970). A brief review of the main themes and areas of emphasis in these plans confirms that, from the beginning, development planning has put human development at the center of the Kingdom's development efforts.

The First Development Plan 1390-1394H (1970-1974) emphasized three core areas of development: growth of GDP, development of human resources and diversification of the economy to reduce dependence on oil. Subsequent plans continued to emphasize these objectives and build upon them, while adding new priority areas and dimensions. The Second Plan 1395-1399 H (1975-1979) laid special emphasis on the need for balanced growth that benefits all sections of society, on the development of the private sector and the need to focus on regional development. The Third Plan 1400 - 1404H (1980 - 1984) stressed the role of structural change in GDP growth, the need for a broader participation by the private sector in development efforts and increased efficiency in the use of resources. The Fourth Plan 1405-1409H (1985-1989) called for a review of existing policies to promote private sector growth and emphasized community development,

### Strategic Objectives of Development in Saudi Arabia

Box: 2.2

- \* To defend the Faith and the Nation; to uphold security and social stability; and to deepen the values of national loyalty and belonging.
- \* To improve the standard of living and the quality of life of the Saudi people.
- \* To develop human resources in order to meet the needs of the national economy for manpower to provide employment opportunities for Saudis; and to replace non-Saudi manpower by qualified Saudis.
- \* To diversify the economic base and reduce dependence on the production and export of oil through the development of other natural resources and promotion of various economic activities.
- \* To provide a favorable environment for the activities of the private sector, and to encourage it to invest and play a leading role in the development process.
- \* To enhance Kingdom's position within global economy, boost its competitiveness and expand regional economic cooperation.

*Source: Ministry of Economy and Planning.*

according special attention to the handicapped, achieving budgetary balance and environmental issues. The Fifth Plan 1410-1414H (1990-1994) reiterated these objectives and focused on the quality of education, regional development, increasing employment opportunities for women and the provision of adequate resources for maintenance. The plan also highlighted the importance of water management, called for making primary education compulsory and underlined the market relevance of education, and a shift in health policy through according attention to preventive measures. The Sixth Plan 1415/16-1419/20H (1995-1999) stressed

on development and utilization of manpower, realization of economic efficiency, enhancement of the private sector's role in the national economy and privatization of utilities, while maintaining the Government hold on the provision of basic services. The plan also highlighted the need to intensify efforts for the Saudization of employment, particularly in the private sector. It also underlined industrial safety and occupational health, promotion of youth welfare programs and the education of citizens. The Seventh Plan 1420/21-1424/25H (2000-2004) has been formulated with a view to meeting the challenges faced in preparing the Saudi

economy to integrate into the global economy and to confront the challenges at the domestic level. Foremost among the challenges is the steady rise in population which requires expansion of public services and infrastructure and the need to increase the pace of Saudization through increased training and skill enhancement. Special stress is placed in the plan on privatization and due attention is paid to the requirement for continuous expansion and maintenance of the infrastructure. In addition, the plan underscores other important areas, foremost among which is the reform of the administrative and financial set up; and restructuring of government agencies to raise the efficiency of delivering services.

Another major theme in the plan is strengthening the development of technology and informatics through the build up of a national science and technology base.

The process of planning in Saudi Arabia is now entering a new stage characterized by:

- \* Greater emphasis on expanding private sector's role, and boosting its efficiency to undertake many of the economic and social tasks.
- \* Increasing reliance on indicative planning approach, while gradually reducing reliance on directive planning.
- \* Greater emphasis on a strategic and long-term vision of economic and social development, with a time horizon that goes well beyond the five-year span, to twenty years.
- \* Intensive Government efforts to realize human development as a priority developmental course, with special emphasis on education sector and improving quality of the educational process.
- \* Increasing emphasis on science and technology as the global economy shifts to a knowledge-based economy, along with the fact that growth has become increasingly tied to the level of technical growth.

The steady emphasis on development spending for raising the Saudi people's standard of living, and improving the quality of their lives, is evident in the changing pattern of development spending. The trend in development expenditures over the duration of the first six plans, depicted in summary form in Table 2.1, clearly reflects this shift in



emphasis. In the early plans, a significant portion of development expenditures went to the creation of basic infrastructure, the provision of services such as water, electricity and telephone; and to housing – outlays geared primarily to improving the country’s productive capacity. At the same time, substantial resources were channeled towards health and education. With the passage of time, the share of human development - oriented expenditures overtook and then surpassed those on infrastructure and economic resources. At present, improvement of educational services figures prominently as the most important development objective.

As Table 2.1 shows, expenditure on the development of human resources rose from 20.6 percent of the total during the first five-year plan to 56.7 percent in the Seventh Plan. At the same time, expenditure on social and health development more than doubled reaching 19.6 percent, bringing human development-related expenditures to more than 76.3 percent of the total. In monetary terms, expenditures on human resources and social and health development rose, respectively from SR 7 billion to SR 276.9 billion, and from SR 3.5 billion to SR 95.8 billion between the First Plan and the Sixth Plan.

<b>Development Plans</b>	<b>Infra-Structure</b>	<b>Economic Resources</b>	<b>Human Resources<sup>1</sup></b>	<b>Social and Health<sup>2</sup></b>	<b>Total</b>
First Plan 1390 – 1394 H (1970-1974)	41.4	27.7	20.6	10.3	100.0
Second Plan 1395 – 1399 H (1975-1979)	49.3	28.0	14.7	8.0	100.0
Third Plan 1400 – 1404 H (1980-1984)	41.1	30.7	18.4	9.8	100.0
Fourth Plan 1405 – 1409 H (1985-1989)	28.9	20.4	33.0	17.7	100.0
Fifth Plan 1410 – 1414 H (1990-1994)	22.0	10.0	48.0	20.0	100.0
Sixth Plan 1415 – 1419 H(1995-1999)	15.9	9.3	53.5	21.3	100.0
Seventh Plan (Requirements) 1420-1424H (2000-2004) *	15.2	8.5	56.7	19.6	100.0

<sup>1</sup> **General education, higher education, technical education, training, science and technology and informatics.**

<sup>2</sup> **Health care; social, youth and information services; and cultural, religious, judicial and voluntary services.**

\* **Represents what is planned in the Seventh Development Plan.**

*Source: Ministry of Economy and Planning.*

## Human Development Indicators for Saudi Arabia

### *Life Expectancy:*

Life expectancy at birth is approaching the maximum level set by the UNDP to measure longevity index. Indeed, due to the improvement in access to health services, and better nutrition standards, the Kingdom has achieved a remarkable increase in life expectancy over the past three decades: from an average of 53.9 years in 1390-1395H (1970-1975) to a level of 70.9 years in 1415-1420H (1995-2000).<sup>(4)</sup> Given this, and following the UNDP methodology, the value of the life expectancy index for Saudi Arabia has increased from 0.48 to about 0.77 during the same period.

This places the Kingdom solidly above the level achieved by the Arab States (66.4 years) and developing countries as a whole (64.5 years). The under-five mortality rate has seen a dramatic decrease from 185 per 1000 live births in 1390H (1970) to 21.5 in 1420H (2000), while the infant mortality rate has been reduced from 118 per 1000 live births to 19.1 over the same period.

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(4) UNDP, Human Development Report, 2002, (Human Development Indicators, Table 8).

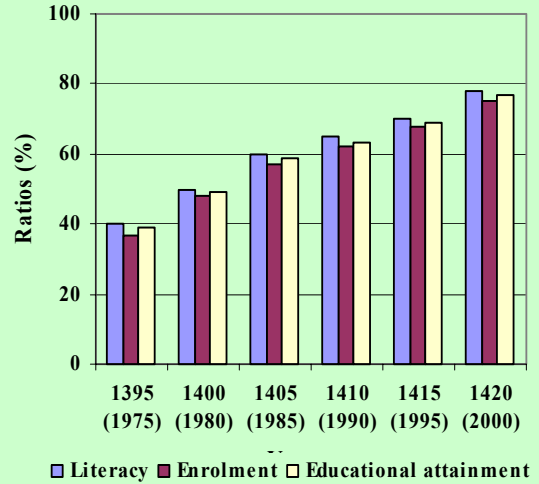
### *Educational Attainment:*

Based on the statistical data available on population by sex and age groups, and assuming that schooling age extends between 6 and 22 years of age, the computed combined enrolment ratios point to a considerable increase from 33.9 percent in 1395H (1975) to 85.8 percent in 1420H (2000). Additionally, enrolment ratios by educational level indicate that substantial growth has taken place in the secondary and tertiary levels for male and female students. As such, these indicators reflect growing demand for both stages of education, particularly in the tertiary stage where combined enrolment ratios increased by more than ten-folds over their 1395H (1975) level, namely from a mere 6.7 percent to 57 percent of population at the age group (19-22) years.

Another significant factor that contributes to progress of the Kingdom's human development index lies in developments related to the literacy rate of overall population, 10 years and older, which rose from about 35.7 percent in 1394H (1974) to 79 percent in 1420H (2000). Thus, the Kingdom's ranking in terms of the literacy

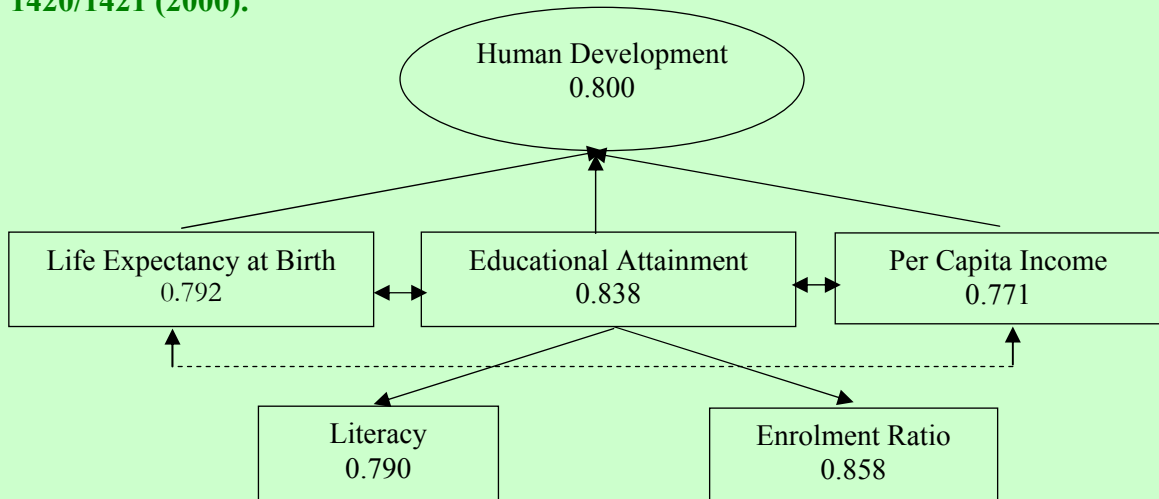
index indicates that the Kingdom, is on the verge of moving to the category of countries classified as having a high level of human development, particularly in view of the fact that intensive efforts continue to be made in adult education and eradication of illiteracy. Based on the UNDP methodology which estimates the educational attainment index as a weighted average of adult literacy index and combined enrolment index, Saudi Arabia's educational attainment index has improved significantly from 0.374 in 1395H (1975) to 0.838 in 1420H (2000).

**Educational Attainment Indicators, 1395-1420H (1975-2000)** **Figure: 2.2**



*Source: Ministry of Economy and Planning.*

**Human Development Index for the Kingdom of Saudi Arabia: 1420/1421 (2000)** **Figure: 2.3**



*Source: Ministry of Economy and Planning.*

### ***Per Capita Income:***

Saudi Arabia's per capita income stood at \$ 1145 in 1390H (1970), and increased to \$ 6507 in 1395H (1975), before it peaked to \$ 16,880 in 1400 H (1980). However, with the slump in international oil prices, average per capita income declined relatively over the ensuing years. The patterns of change in per capita income are subject to the changes in the growth rates of population and GDP.

It is noteworthy that the Human Development Report 1418H (1998) stated that, Saudi Arabia's per capita GDP stood at US \$ 10,158, compared to an average GDP per capita of US \$ 6,526, for the world and US \$ 4,140 for Arab states.

- **Standard of living and quality of life:** Average per capita income of Saudi citizens increased from US\$ 1,145 in 1390H (1970) to US\$ 10,853 in 1422H (2002). Life expectancy at birth reached 70.9 years in 1420H (2000) compared with an average of 53.9 years during the period 1390-1395H (1970-1975). The number of physicians in the Kingdom rose from 1,172 in 1390H (1970) to 32,683 in 1422H (2002), while the number of hospital beds increased from 9,039 to 47,242 beds during the same period. Reimbursements by the social security system amounted to more than SR 3 billion in 1422H (2002) compared with only SR 47.6 million in 1390H (1970), while payments made to people in need of temporary assistance reached SR 410.2 million in 1422H (2002).
- **Economic diversification:** The share of non-oil sectors in real GDP increased from about 46 percent in 1390H (2000) to about 72.4 percent in 1422H (2002). Non-oil GDP increased more than five-folds during the same period, i.e. by an average annual growth rate of 5.5 percent. Average annual growth of value added in manufacturing reached 8 percent during the past 32 years, while value added in agriculture rose by about eight - folds from the beginning of the First Plan in 1390H (1970) to the end of the Sixth Plan in 1419H (1999).
- **Development of human resources:** The Kingdom has been giving increasing attention to human resources development through continued support of education at all levels including technical education, vocational training, and pre-service and in-service training. Major achievements include the establishment of 8 universities, 78 girls colleges, 17 technical colleges, 18 teachers colleges, 13 health colleges, 24 health institutes, and 68 technical institutes and vocational training centers. The total number of schools at all levels increased from 3,283 schools in 1390H (1970) to about 24,748 in 1422H (2002). Enrolment in all educational institutions increased from 547 thousand to more than 5 millions during the same period .
- **Consolidating the role of the private sector:** Private sector production increased at an average real annual rate of 5.8 percent over the duration of the first six development plans, surpassing growth in real GDP which averaged 3.2 percent annually. The sector's contribution to total real GDP and to non-oil GDP amounted to 48.4 percent and 70.9 percent, respectively, in 1420H (2000). Annual private investments rose from SR 1 billion in 1390H (1970) to about SR 64.2 billion in 1420H (2000) bringing the contribution of the private sector to total fixed capital formation to 68 percent at current prices.
- **Development of infrastructure:** The length of paved roads network increased from 8,000 kilometers in 1390H (1970) to about 47,700 kilometers in 1422H (2002). The Kingdom has now 25 modern airports, including 3 international airports capable of accommodating the most advanced types of aircraft. Electricity generation capacity increased from 344 Mw in 1390H (1970) to 24,768 Mw in 1422H (2002), or at an average annual rate of 15 percent. Over the same period, water desalination capacity increased from 21,500 cubic meters per day to around 2.4 million cubic meters per day, or at an average annual growth rate of over 17 percent.
- **Telecommunication Services:** The telephone exchange capacity increased from 77000 lines in 1390H (1970) to 4.8 million lines in 1422H (2002). The number of the mobile telephone lines, on the other hand, increased from 160000 lines in 1415H (1995) to about 5 million in 1422H (2002).

Source: Ministry of Economy and Planning.



## CHAPTER THREE



### HEALTH AND HUMAN DEVELOPMENT

Saudi Arabia's health care services have witnessed significant improvements over the past three decades. Both the Government and the private sector have made huge investments in health facilities. Intensive and advanced primary health care programs have been implemented and a health system providing integrated and comprehensive health services activities has been put in place. The efforts thus exerted have greatly contributed to improving the health situation of the population in general, and increasing the life expectancy - one of the three basic indicators used in the measurement of human development in particular. Great achievements have been scored in the quality of life enjoyed by the population as a result of preventive health programs which have led to a sizeable fall in the incidence of diseases, with total eradication of some diseases. Highly efficient and technologically advanced curative services are also being provided through an integrated network of health care centers and hospitals spread throughout the Kingdom.

This chapter begins with a review of the

health care system and health infrastructure, and discusses the relevant impact on human development. Expenditure on health services and the role of the private sector are highlighted. In addition, the chapter explores the progress of health services in the Kingdom, in terms of immunization, reduced incidence of communicable diseases, fertility and reproductive health, and improved life expectancy at birth. The chapter finally presents the key health development issues, strategies, and policies in the Kingdom that are necessary to ensure the continued contribution of effective health services to realizing human development.

#### **The Health Care System and Infrastructure**

The Ministry of Health (MOH) is the main agency entrusted with the responsibility for public health care services (preventive, curative and rehabilitation) in the Kingdom, providing some 80 percent of such services. Primary health care services are provided through an extensive network comprising 1786 health care centers spread throughout the Kingdom. Curative care is provided to all

members of society, through the referral system, extending from the general practitioner up to the level of advanced technology-based specialist curative services, through a broad base of general and specialized hospitals. The private sector and other government agencies, which provide direct health care for specific segments of the population,<sup>(5)</sup> account for the remaining services. The private sector provides health services through its extensive facilities including hospitals, dispensaries, laboratories, pharmacies and physiotherapy centers spread throughout various regions of the Kingdom.

The dramatic improvement in the health situation of the Saudi population and the drop in the incidence of communicable diseases

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<sup>(5)</sup> The security and military agencies provide primary, secondary and tertiary levels of health care directly to their staff, while school health units provide primary health care to pupils. The General Organization for Social Insurance and the General Presidency of Youth Welfare provide health services to certain categories of population. The Royal Commission for Jubail and Yanbu provides health services to its employees in these two industrial cities.

have been made possible by the establishment of an extensive network of supportive infrastructure, and the priority given to making primary health care accessible to all Saudi citizens, irrespective of their place of abode, so that the entire population can have access to health care services.

Over the period of development Planning 1390-1422H (1970-2002) shows that the total number of government and private hospitals has increased from 74 to 331 hospitals, or by more than three folds (Table 3.1). During the same period, the total number of health centers increased by more than five folds from 591 to 3,627 while the number of hospital beds increased by four folds from 9,039 to 47,242. The most significant increase, however, has occurred in medical personnel where the number of physicians rose from 1,172 to 32,683, or by about twenty seven folds, the number of nursing staff increased from 3,261 to 68,097 (about twenty folds); and the number of allied health personnel, including pharmacists, jumped from 1,741 to 40,475 (more than twenty two folds).

Available data for the years 1394H and 1422H (1974 and 2002) show that the number of hospital beds per 1000 of the population



**Health Infrastructure, 1390 – 1422H (1970 – 2002)**

**Table: 3.1**

Indicator	1390H (1970)	1422H (2002)	Index (1970=100)
Total number of hospitals	74	331	447
Total number of hospital beds	9,039	47,242	523
Total number of physicians	1,172	32,683	2789
Total number of nursing staff	3,261	68,097	2088
Total number of allied health personnel, including pharmacists	1,741	40,475	2325
Total number of health care centers	591	3,627	614

*Source: Ministry of Economy and Planning, Achievements of the Development Plans (21<sup>st</sup> Edition).*

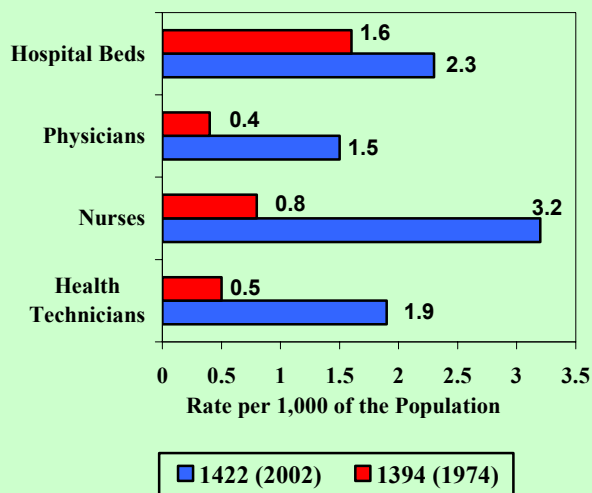
increased from 1.6 to 2.2 beds; that of physicians from 0.4 to 1.5 while the number of nursing staff per 1000 of the population increased from 0.8 to 3.2, and that of health technicians from 0.5 to 1.9 (Figure 3.1).

The priority accorded by the Kingdom to making primary health care generally available is reflected in the increase of the number of primary health centers (Table 3.1). This is further reflected in the significantly high growth rates for the number of medical personnel (physicians, nursing staff and health technicians). These centers provide child and maternity care as well as special care for needy groups. Primary health care centers also provide health education activities, environmental health, preventive services and curative services at the level of the general practitioner. The large number of centers available provide health services free of

charge throughout the Kingdom and render medical care services readily accessible to the population.

Parallel with the build-up of the primary health care system, a number of highly specialized facilities, renowned for their

**Indicators of Health Services Infrastructure, 1394 and 1422 (1974 and 2002)** **Figure 3.1**



*Source: Ministry of Health.*

advanced diagnostic and therapeutic techniques, modern equipment, professional staff and the high quality of services offered, have been established. Many of these perform delicate operations such as open-heart surgery, kidney transplants, fertilization, etc. The availability of these facilities at home has drastically reduced the need for Saudis to seek medical treatment abroad. In addition, some of these health facilities now serve as referral centers for neighboring countries. Most medical laboratory tests are now performed in Saudi Arabia.

### **Expenditures on Health Services**

The expansion of the Kingdom's health care system was made possible due to the continuous emphasis placed by the government and the successive development plans on health services, including both preventive and curative aspects, as well as on provision of primary health care to the Kingdom's population. As a result, expenditure on health services has increased steadily. Currently, public and private health expenditures account for about 8.0 percent of GDP (Table 3.2). The public sector accounts for the lion's share, or 6.4 percent of GDP, compared to 3.2 percent for "middle income" developing countries, thus reflecting Saudi

Arabia's priority of making high quality health services available to all citizens.

Health services development indicators evidence the leading role of the government health sector. Over the period 1390-1422H (1970-2002), the number of hospitals operated by the Ministry of Health increased from 47 to 193, the number of health centers from 519 to 1786, and the number of hospital beds from 7,165 to 28,492 beds. Over the same period, the number of physicians, nursing staff and other medical staff serving in these hospitals and centers increased from 789 to 15,315, from 2,253 to 36,900, and from 1,396 to 22,470 respectively. The number of hospitals and hospital beds operated by other Government agencies reached 39 hospitals and 9413 beds. <sup>(6)</sup>

### **The Role of the Private Sector in the Provision of Health Services**

The role of the private sector in the provision of health services has expanded rapidly over the past three decades, reflecting the growing demand for these services by both Saudis and expatriates, as well as Government encouragement to private sector's

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(6) Kingdom of Saudi Arabia, Ministry of Economy and Planning, Achievements of the Development Plans, 1390-1422H (1970-2002).

**Expenditures on Health services,  
[Average for the Period 1415 –1419H (1995-1999)]**

**Table 3.2**

	Health Expenditures as a Percentage of GDP			Per Capita Health Expenditures
	Public	Private	Total	(\$ U.S)
Saudi Arabia	6.4	1.6	8.0	611
Middle income countries	3.2	3.1	6.3	335

*Source: World Development Indicators, (March 2002).*

involvement in this field. During the period 1414-1418H (1994-1998), the number of patients visiting private health facilities increased by over 30 percent. Over three-quarters of the patients visiting these facilities are Saudi citizens. Currently, the private sector provides about 16 percent of total in-patient services. The role of the private sector in providing health services is expected to expand in the future.

The private sector provides health services at primary, secondary and tertiary levels. By 1422H (2002), the number of hospitals run by the private sector reached 99 hospitals, with 9337 beds, representing 29.9 percent and 19.8 percent of the total in the Kingdom, respectively, compared to shares of 25.8 percent and 15.8 percent in 1414H

(1994)<sup>(7)</sup>.

***Immunization and Reduced***

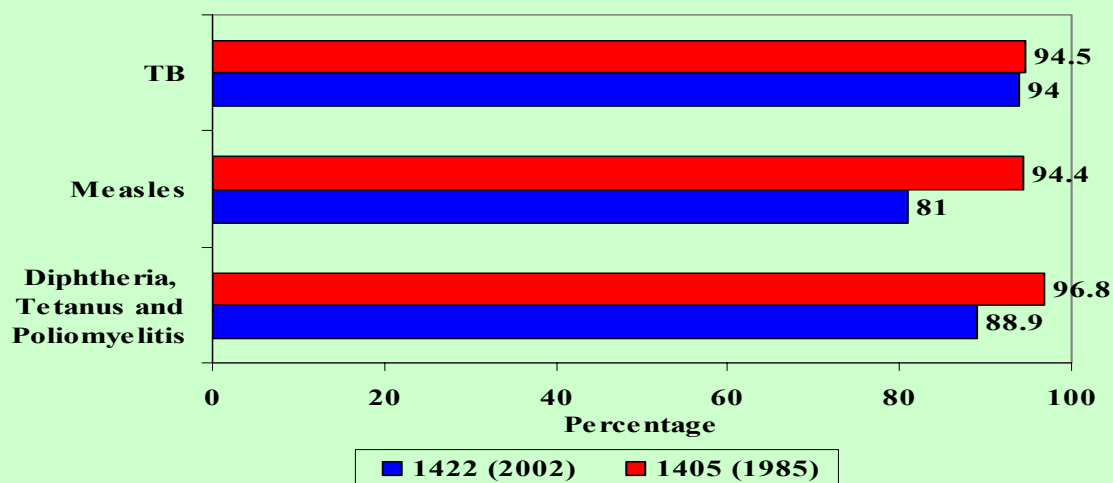
***Incidence of Infectious Diseases:***

The primary health care program in the Kingdom comprises preventive measures against infectious diseases, including immunization of children against diphtheria, whooping cough, tetanus, poliomyelitis, measles, tuberculosis, and hepatitis B, together with specific preventive measures in case of outbreak of certain epidemic diseases. Consequently, 96.8 percent of the children under the age of one year have been covered by immunization against diphtheria, tetanus and poliomyelitis, while the rate of immunization against both measles and

(7) Kingdom of Saudi Arabia, Ministry of Economy and Planning, Achievements of the Development Plans, 1390-1422 (1970-2002).

**Immunization coverage of children under one year against selected diseases 1405 and 1422H, (1985 and 2002)**

**Figure 3.2**



*Source: See Table (3.3)*

tuberculosis reached 94.4 percent and 94.5 percent respectively (Table 3.3). As a result, communicable diseases have been reduced to levels seen only in highly developed countries. These preventive measures are reflected in the steady decline in the incidence of main infectious diseases, as can be seen in the following:

- \* The incidence of diphtheria per 100,000 of the population decreased from 0.1 in 1405H (1985) to 0.0 in 1422 H (2002). No case of poliomyelitis was reported over the past two years.
- \* The incidence of neonatal tetanus decreased over the same period from 0.1 to 0.05 per 1000 births, and the

incidence of whooping cough from 2.16 to 0.17 per 100,000 of the population.

- \* The incidence of hepatitis B, mumps, and measles per 100,000 of the population decreased from 26.8 to 18.54 for hepatitis B, from 75 to 4.51 for mumps, and from 57.1 to 2.64 for measles during the period 1405-1422H (1985-2002).
- \* The incidence of rubella (German measles) per 100,000 of the population decreased from 8.93 to 1.08, of typhoid from 5.22 to 1.06, and of meningitis from 2.1 to 1.52 during the period 1408-1422H (1988-2002).

**Major Health Services Indicators  
1405 and 1422 H (1985 and 2002)**

**Table: 3.3**

<b>Indicator</b>	<b>1405H (1985)</b>	<b>1422H (2002)</b>	<b>Index (1985 = 100)</b>
<b>1. Health and Related Services:</b>			
Population with access to health services (%)	95	99	104
Physicians per 100,000 people	62.3	153	246
Nurses per 100,000 people	130.9	319	244
Immunization against diphtheria, tetanus and poliomyelitis for children under one year of age	88.9	96.8	109
Immunization against measles for children less than one year of age (%)	81	94.4	117
Immunization against tuberculosis for children under one year of age (%)	94	94.5	117
Rate of incidence of diphtheria (per 100,000 people)	0.1	00	00
Rate of incidence of poliomyelitis (per 100,000 people)	0.2	00	00
Rate of incidence of neonatal tetanus (per 1000 births)	0.1	0.05	50
Rate of incidence of whooping cough (per 100,000 people)	2.16	0.17	8
Rate of incidence of measles (per 100,000 people)	57.1	2.64	5
Rate of incidence of TB (per 100,000 people)	16.4	14.97	91
Rate of incidence of mumps (per 100,000 people)	75	4.51	6
Rate of incidence of hepatitis B (per 100,000 people)	26.8	18.54	69
Population with access to safe water (%)	69.2	93	134
<b>2. Mother and Child Health:</b>			
Infant mortality rate (per 1000 births)	47	19.1	41
Mortality rate for children under five-years (per 1000 live births)	185 *	21.5	12
Births attended by trained health personnel (%)	78	91	117
Oral re-hydration therapy use rate (%)	73	93.5	128

\* 1390H (1970)

*Source: Ministry of Health, Ministry of Economy and Planning – Central Department of Statistics*

Today, over 90 percent of births are attended and assisted by trained health personnel, as against 78 percent 15 years ago. Moreover, pregnant women who fail to attend a clinic receive home visits.

Other factors that have contributed to improve health conditions in the Kingdom include improved access to safe drinking water and sanitation, together with growing health and

hygiene awareness due to wide scale provision of high quality education.

The sharp decrease in the infant mortality rate, from 118 per 1,000 live births in 1390H (1970) to 19.1 in 1420H (2000), and in the mortality rate of children under five from 185 per 1,000 live births to 21.5 over the same period, testifies to the efforts exerted by the Saudi authorities to raise health standards of

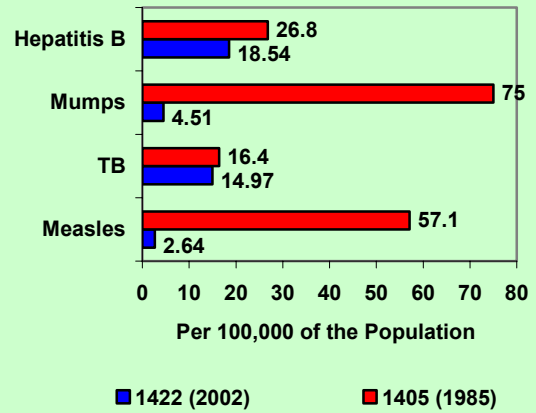
the Kingdom's population, and reflects the priority accorded to expanding access to primary health care services, including nationwide immunization programs and campaigns to combat infectious diseases. (Table 3.4). Despite these unique achievements compared to other developing countries, yet much efforts need to be made to attain levels achieved in the developed world.

**Fertility and Reproductive Health:**

The total fertility rate of Saudi women has declined rapidly in recent years, from 6.4 births per woman in 1405H (1985) to 4.8 births in 1420H (2000)<sup>(8)</sup>. This trend is in line with international experience of countries undergoing fast human development and improved health awareness, and is attributed to better education and the changes in social attitudes that have accompanied the development process in the Kingdom. Among the most significant of these changes is the increasing tendency to postpone marriage to a more mature age for both males and females. According to the 1420H (2000) demographic survey, about 90 percent of males in the age group (20-24) years were not

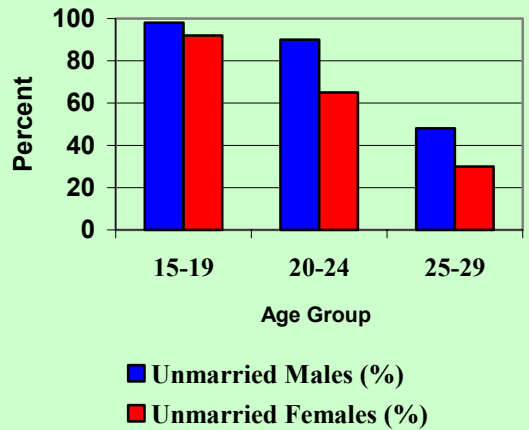
(8) Demographic characteristics of the Kingdom according to the results of the Demographic Survey, 2000 conducted by the Central Department of Statistics.

**Selected Diseases, 1405 and 1422H (1985 and 2002)** Figure 3.3



Source: See table( 3.3)

**Unmarried population in selected age groups** Figure 3.4



Source: Ministry of Economy and Planning – Central Department of Statistics (2000).

married; the corresponding ratio for females was close to 65 percent. In the age group (25-29) years, nearly half of all males and one-fourth of all females were still unmarried.

Nevertheless, the Kingdom's fertility rate

**Infants and children Under-Five Mortality Rates  
(Per 1,000 live births)**

**Table 3.4**

	Infant Mortality rates			Under Five Mortality rates		
	1390 H (1970)	1420 H (2000)	Index (1970=100)	1390 H (1970)	1420 H (2000)	Index (1970=100)
Saudi Arabia	118	19.1 *	16	185	21.5*	12
Arab States	132	46	35	204	61	30
All Developing Countries	108	61	57	166	89	54
OECD countries	40	12	30	53	14	26
World	96	56	58	146	81	56

\* *Source, Ministry of Health.*

*Source: United Nations Development Programme, Human Development Report 2002 (Human Development Indicators, Table 8).*

stands at 4.8<sup>(9)</sup>, compared to 2.6 in countries with “medium” levels of human development. According to the UNDP's Human Development Report 2002, the total fertility rate averages 4.1 in the Arab States, 3.0 in the developing countries, and 1.8 in the OECD countries. It is worth mentioning, however, that fertility represents one of the most critical factors that have a bearing on economic and social development.

This is due to the fact that fertility is directly linked to demand for natural and economic resources, and for health and education services, besides its impact on income levels.

### ***Life Expectancy:***

Health indicators of the Saudi population reflect marked positive developments. Mortality rates of infants and children under five years decreased sharply. Over the past three decades 1390-1420 (1970-2000)<sup>(10)</sup>, life expectancy at birth for the Saudi population as a whole has seen a substantial increase, from an average of 53.9 years to 70.9 years. Life expectancy for men reached 70.3 years as against 73 years for women in 1420H (2000)<sup>(11)</sup>. The record of the Kingdom in this respect compares favorably with that of developing countries, and that of the Arab States. (Table 3.5).

(9) Kingdom of Saudi Arabia, Ministry of Economy and Planning, Central Department of statistics, Demographic Characteristics of the Saudi Population, Demographic Survey, 2000.

(10) UNDP, Human Development Report, 2002, (Human Development Indicators, Table 8).

(11) UNDP, Human Development Report, 2002 (Human Development Indicators, Table 22).

**Life Expectancy at Birth in Saudi Arabia Compared with that in Selected Country Groupings, 1390-1395H and 1415-1420H (1970-1975) and (1995-2000)** **Table 3.5**

	1970-1975 Average (years)	1995-2000 Average (years)	2000
<b>Saudi Arabia</b>	<b>53.9</b>	<b>70.9</b>	<b>71.3</b>
<b>Arab States</b>	<b>51.9</b>	<b>65.9</b>	<b>66.4</b>
<b>All developing countries</b>	<b>55.5</b>	<b>64.1</b>	<b>64.5</b>
<b>OECD countries</b>	<b>70.4</b>	<b>76.4</b>	<b>76.6</b>
<b>World</b>	<b>59.9</b>	<b>66.4</b>	<b>66.7</b>

*Source: United Nations Development Programme, Human Development Report 2002, Human Development Indicators.*

Over 83 percent of the Saudi population can now expect to live up to 60 years or more, which is not far behind the OECD countries average. International statistics also show that Saudi Arabia was one of the three countries in the world that have achieved the highest level in life expectancy during the period 1390-1415H (1970-1995)<sup>(12)</sup>.

## **Health Development Strategy, Objectives and Policies**

### *Health Development Issues:*

#### *Increasing Demand for Health Services:*

The steady increase in the Kingdom's population, from 7.32 million in 1395H

(1975) to 23.37 million in 1420H (2002), and increased health awareness due to improved education among the Saudi population, have been associated with a very fast expansion in demand for health services. Thus, the number of patients who visited the health centers and out-patient clinics of MOH increased from 52 million in 1411H (1991) to 62 million in 1420H (2000). During the same period, the combined number of patient visits to all Government and private sector health facilities increased from about 73 million to 95 million, or by 3 percent annually. Estimates indicate that the total number of the Saudi population will increase to 28.9 million by 1440H (2020)<sup>(13)</sup> requiring further expansion of the Kingdom's health services facilities to maintain the level of services already achieved. Moreover, as in other countries, increased health awareness among the population makes it necessary to continue to upgrade the quality of the existing services and to provide new ones.

Furthermore, due to the great progress made in reducing common diseases, as well as the emergence of new health problems because of the socio-economic changes associated with

(12) UNDP, Human Development Report, 2002, (Human Development Indicators, Table 8).

(13) Kingdom of Saudi Arabia, Ministry of Economy and Planning, Seventh Development Plan, 1420-1424 (2000-2004).



development and new lifestyles, the structure of demand for health services has been changing. The number of elderly people is increasing rapidly, resulting in increasing needs for special care facilities. With increasing life expectancy, cancer and cardiovascular diseases have become more prevalent. New lifestyles are linked to overweight and obesity and increasing prevalence of diabetes as well as high cigarette consumption and the very high number of car accidents. All these factors constitute additional pressures on the Kingdom's health system. The industrialization of the economy has also led to an increase in the number of work-related casualties.

### *Escalating health care costs:*

In most countries of the world, including the Kingdom, expenditure on health services, as a percentage of the GDP, has been increasing steady. This is attributed to some common factors in all countries, the most eminent of which are the demographic changes and the emergence of new lifestyles. However, the unique circumstances of the Saudi society entail continuous efforts for raising public awareness regarding costs of free medical care, with the aim of rationalizing such costs

particularly with respect to costs of controlling some new diseases such as cancer, kidney and traffic casualties. Furthermore, the Kingdom is keen to provide adequate health services to rural population scattered in small communities over a vast area. This contributes to steady growth of health expenditures.

### *Health manpower and Saudization:*

Despite impressive progress in building up Saudi capabilities in the medical profession, Saudi medical staff still comprises a small share of the health care sector. In 1420H (2000), Saudi nationals accounted for 21.41 percent only of all physicians, 19.5 percent of the nursing staff and 45.4 percent of the supporting technical staff.

Accelerated Saudization in the health care sector is a necessity not only to meet increasing demand and to reduce the rising cost of health services, but also to strengthen the communication and rapport between the medical staff and patients, which are essential for establishing the right diagnosis and successful treatment. Such communication requires, in addition to professional competence, familiarity with the society's language and culture.

Despite significant expansion of medical education in the Kingdom, the number of graduates from medical colleges and institutes is still limited relative to needs. Seeking to address this issue, the Kingdom has recently moved to adopt the following measures:

- Increase the absorptive capacity of colleges of medicine, pharmacy, supporting medical sciences and nursing.
- Increase the number of health science colleges, which prepare support technicians in the various health disciplines; continue to upgrade existing health institutes to health science colleges while increasing their absorptive capacities and enhancing the professional standards of graduates.
- Encourage the private sector to establish health colleges for education and training of support technical staff, under the supervision of the Ministry of Health.
- Make maximum use of programs of study abroad provided for Saudi medical students.

***Data and information:***

Additional information and data is needed for a better evaluation and rationalization of the vast outlays on the health sector. Such data will shed light on the private sector's role in

the provision of health services; the distribution of health expenditures between central and local authorities, between rural and urban areas, between regions and between curative and preventive health care; and the extent to which these services effectively reach vulnerable groups in society, particularly women, children, elderly people, the handicapped and the chronically sick people. Decentralized spending can be very effective as it can better respond to general needs. Preventive care benefits a broader segment of society. Similarly, knowledge of regional disparities in the provision of health care services can serve to improve efficiency in the allocation of available resources according to actual regional needs.

***Developing Scientific Capabilities and Medical Technology:***

The Kingdom pays increasing attention to research and medical technology, seeking to transfer and endogenize such technology, and develop requisite human capabilities. Several research laboratories have been established in the Kingdom's hospitals to achieve this objective. On the other hand, work is under way to prepare a science and technology plan in the Kingdom, which will include measures

for transfer of appropriate medical, bio-medical and pharmaceutical technologies and their endogenization in the Kingdom.

### ***Health Development Strategy, Objectives and Policies:***

The Seventh Development Plan adopts, as a strategic objective, the provision of health care to the Saudi society, with particular emphasis on the following principles:

- Giving attention to primary health care, health awareness and preventive medicine, and increasing the effectiveness of preventive and curative care institutions, along with expanding the scope of health care provision to cover all citizens.
- Providing maternity and child care in all aspects and at all levels, including mother and child health care programs.

Within the framework of these principles, the general objectives of the health services sector are set as follows:

- Continue to provide health care, both preventive and curative, making them easily accessible, and provide full coverage of basic health services to the entire population through primary health care centers.

- Continue efforts to reduce morbidity and mortality rates.
- Support and enhance curative health care services, upgrading their efficiency and making them easily accessible to all citizens.
- Prepare and upgrade the skills of health personnel to meet the requirements.
- Develop health information and research systems adequately to support health care programs.
- Coordinate and integrate all health activities and services undertaken by the sectors related to health care and to achieve optimal use of resources.
- Enhance the role of the private sector in the provision of health care as well as in finance, construction and management of health facilities.

Several challenges should be confronted in order to implement the health development strategy. Most important of these challenges is to ensure availability of the resources needed, both financial and human, in order to assume a bigger role in the provision of health services. In addition, manpower shortage in the medical sector over the short and medium-terms will have to be resolved by providing the appropriate types of incentives that would

attract increasing numbers of Saudi nationals to the medical and related professions.

***Policies:***

The objective of health policies is to achieve the strategic principles and targets related to continued upgrading of health standards, and to provide highly efficient health care services to the population. Following is a summary of the policies, as defined in the Kingdom's Seventh Plan:

- \* Continue to implement primary health care programs and recognition of primary health care centers as the basic providers of health services.
- \* Give priority to the provision of comprehensive health care to the most vulnerable categories of the population, particularly women, children, elderly people, the handicapped, and chronically sick persons.
- \* Eliminate causes of non-communicable diseases and develop methods of diagnosis and treatment of such diseases.
- \* Increase the number of hospital beds to achieve the targeted beds/population ratio.
- \* Give due care to maintenance and modernization of existing hospitals and providing them with state-of-the-art equipment.
- \* Study the best possible methods for the management and operation of Ministry of Health's hospitals in such a way that would achieve flexibility in decision-making, upgrade efficiency of curative services and rationalize expenditure.
- \* Provide advanced diagnostic services in line with internationally recognized standards.
- \* Support organ transplant programs, establish medical rehabilitation departments in regional central hospitals, and provide all the necessary facilities for treatment of handicapped people.
- \* Support medical emergency and relief services.
- \* Apply quality control programs at all health facilities and develop guidelines for work procedures in each hospital.
- \* Apply an on-going evaluation and assessment system for all levels of protective and curative health care programs, using specific and clear-cut scientific indicators.
- \* Apply the cooperative health insurance system to non-Saudi residents, and study the possibility of applying it to Saudi nationals.
- \* Ensure coordination among the various services of the health sectors, through a

supreme council where all relevant sectors are represented, in order to achieve optimal utilization of resources.

- \* Enhance the capacity of existing medical colleges and open more branches in different cities, in order to absorb more qualified students who are willing to take up medical studies with a view to speed up the Saudization of manpower in health sectors.
- \* Develop existing health institutes, and open more branches of these institutes in the various cities of the Kingdom to absorb more students to meet the increasing demand for support technical staff.
- \* Expand training and scholarship programs, both within and outside the Kingdom.
- \* Encourage the private sector to take part in the education and training of health manpower through investment in education and training areas.
- \* Boost private sector participation in manufacturing of medicines, pharmaceutical chemicals, and medical equipment.

### ***Targets in Health Fields:***

The following are the targeted objectives of the Seventh Plan:

- Reduce the morbidity rate of infectious diseases per 100,000 of the population,

through immunization, to 0.01 for diphtheria, 0.02 for whooping cough, 10 for measles and eliminating Poliomyelitis.

- Reduce the morbidity of neonatal tetanus to 0.01 per 1000 births.
- Reduce the morbidity rate of TB to less than 12 cases per 100,000 of the population.
- Reduce the morbidity rate of malaria to less than 200 cases per 100,000 of the population in high endemic areas, to less than 50 cases in medium endemic areas and to less than 10 cases in low endemic areas, and ensure that infection-free areas are kept clean.
- Reduce the morbidity rate of bilharzia to less than 200 cases per 100,000 of the population in high endemic areas, while maintaining reduced incidence rates in low endemic areas, and ensuring that infection-free areas are kept clean.
- 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.
- Raise the percentage of mothers who are provided with health care by health professionals to not less than 95 percent.
- Increase the rate of delivery attended by

health professionals to not less than 95 percent.

- Increase the immunization coverage of pregnant women against tetanus to not less than 85 percent.
- Open and operate 250 primary health care centers.
- Addition of 4,630 hospital beds.
- Start construction of 44 new hospitals with a capacity of 50 beds each.
- Start construction of 15 new hospitals with a capacity of 100-500 beds as well as two rehabilitation centers for 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 the Hajj season at the Holy sites and roads used during the Hajj.

OR AND HUMAN RESOURCES





## CHAPTER FOUR



# EDUCATION AND HUMAN DEVELOPMENT

This chapter addresses the role of education in the Kingdom's human development. It reviews the progress of enrolment at all levels of education over the span of the successive development plans, along with the dimensions of this progress by sex, and its significant bearing on reducing illiteracy rates. The chapter further analyzes the priority given to education in terms of expenditure, and sheds light on the role the private sector can play in this respect. In addition, this chapter touches on the assessment of the efficiency of the existing education system and explores the remedies involved. A review of the present situation of issues and policies of education as envisaged by the Seventh Development Plan, particularly the objectives and policies related to general and higher education, is also provided in this chapter.

### **The Role of Education in Human Development**

Education and training are considered to be among the most important ingredients of human development because of their profound impact on other aspects of human

development. This explains why educational attainment carries equal weight, as life expectancy and income, in the Human Development Index (HDI).

The expansion of education does not only increase the choices afforded to individuals, who are the critical element in human development, but also provides better living conditions through greater access to better employment opportunities and improved health conditions. Through education, people learn to be active participants in the development process instead of just being recipients of its benefits. Numerous studies have also shown that productivity growth and improved incomes are positively related to educational attainment. The shift to an increasingly integrated, information and knowledge-driven global economy is greatly increasing the role of education in boosting the competitiveness of individuals, firms and nations. For these reasons, education has been given highest priority since the beginning of development planning in the Kingdom in 1390H (1970).

The priority accorded to education finds its expression in the sharp expansion that has taken place over the last thirty years in the number of educational institutions and students. It is equally evident in the various education indicators and variables such as improvement in quality of education, school enrolment, pupil/teacher ratios, and expenditure on education, as discussed in the following sections.

### **Enrolment at Education Levels**

Two of the most important elements in advancing the cause of human development in the Kingdom over the past three decades have been the dramatic increase in school enrolment at all levels of education for both sexes, in particular for girls, and the concomitant reduction in illiteracy. In line with the top priority given to human resources development since the beginning of development planning in the Kingdom, the First Development Plan, issued in 1390H (1970), stressed the importance of ensuring that opportunities for formal education are available for all members of society from the

elementary level to the university level <sup>(14)</sup>.

The First Plan also gave priority to continued expansion of the elementary education system to accommodate the largest proportion of the elementary school-age population and make basic education generally available. The Plan also noted girls' high responsiveness to educational opportunities, which turned out as a result of the top priority accorded to this sector since the beginning of development planning in the Kingdom. The priority given to girls' education is further reflected in the First Plan's objective of increasing girls' elementary school enrolment by 95 percent during the course of the Plan period as against 55 percent for boys. The emphasis on the need for expanding the provision of educational opportunities in smaller communities and rural areas further attests to the priority given to making primary education available for both boys and girls in all regions of the Kingdom.

These priorities have been reiterated in successive development plans, with gradual

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(14) Ministry of Economy and Planning, Kingdom of Saudi Arabia, First Development Plan, 1390-1394 (1970-1974).

shifts in emphasis, particularly towards higher education, along with continued efforts to complete the base of general education and to upgrade its level, in order to achieve the relevant strategic objectives and meet emerging challenges.

### **Illiteracy rates**

Illiteracy rate of the Saudi population in the age group 10 years and above has been reduced from 64.3 percent in 1394H (1974) to about 19.9 percent in 1420H (2000). This constitutes a significant factor in enhancing the human development level of the Kingdom of Saudi Arabia. Noteworthy in this context is the fact that the Kingdom achieved this significant advancement in illiteracy eradication during a record time span even compared to countries that are categorized as having achieved a high score in this field. This is reflected in the marked increase in adult literacy rate though the need is still there for exerting more efforts to sustain the improvement. In fact, a positive relationship exists between age groups and literacy levels. Consequently, education enrolment rates are bound to accelerate at a rapid pace, not merely due to expansion of education services and adult education programs, but

also as a result of the shift in the educational profile of the Saudi population-rising number of educated persons, and the gradual decline in the share of illiterate persons among the elderly population. This would eventually contribute to rendering the Kingdom's level of illiteracy eradication closer to the levels attained by advanced countries, whose educational asset has been accumulating over a much longer period of time.

### **Education Enrolment Ratios**

The substantial increase in education enrolment ratios was a natural outcome of the rapid rate at which enrolment at all levels of education has been expanding (Table 4.1 and Figure 4.1). The following features of this expansion stand out:

- \* Gross enrolment of both male and female students at all levels and types of education has increased from 984,000 in 1395H (1975) to over 5 million in 1422H (2002), at an average annual growth rate of about 6.5 percent. Growth rate of the number of female students averaged 8.3 percent per year against 5.3 percent for male students (Table 4.1). Consequently, the Kingdom's education enrolment-related gender inequality indicator,

**Enrolment by gender and education level, 1395 - 1422H (1975 - 2002)**

**Table 4.1**

	Number of students (males and females) , 000s								Average annual growth rate (%)		
	1395 H (1975)				1422 H (2002)				Male	Female	Total
	Male	Female	Total	Gender ratio**	Male	Female	Total	Gender ratio**			
Primary & Intermediate levels	510	261	771	2.0	1807	1622	3429	1.1	5.0	7.3	5.9
Secondary level	32	10	42	3.2	433	409	842	1.1	10.5	15.3	12.2
Tertiary level	31	7	38	4.4	232	255	487	0.9	8.0	14.8	10.3
Other (*)	100	33	133	3.0	126	168	294	0.8	0.89	6.59	3.13
Total	673	311	984	2.2	2598	2454	5052	1.0	5.33	8.3	6.5

(\*) Includes adult education and special education

(\*\*) Number of males per one female

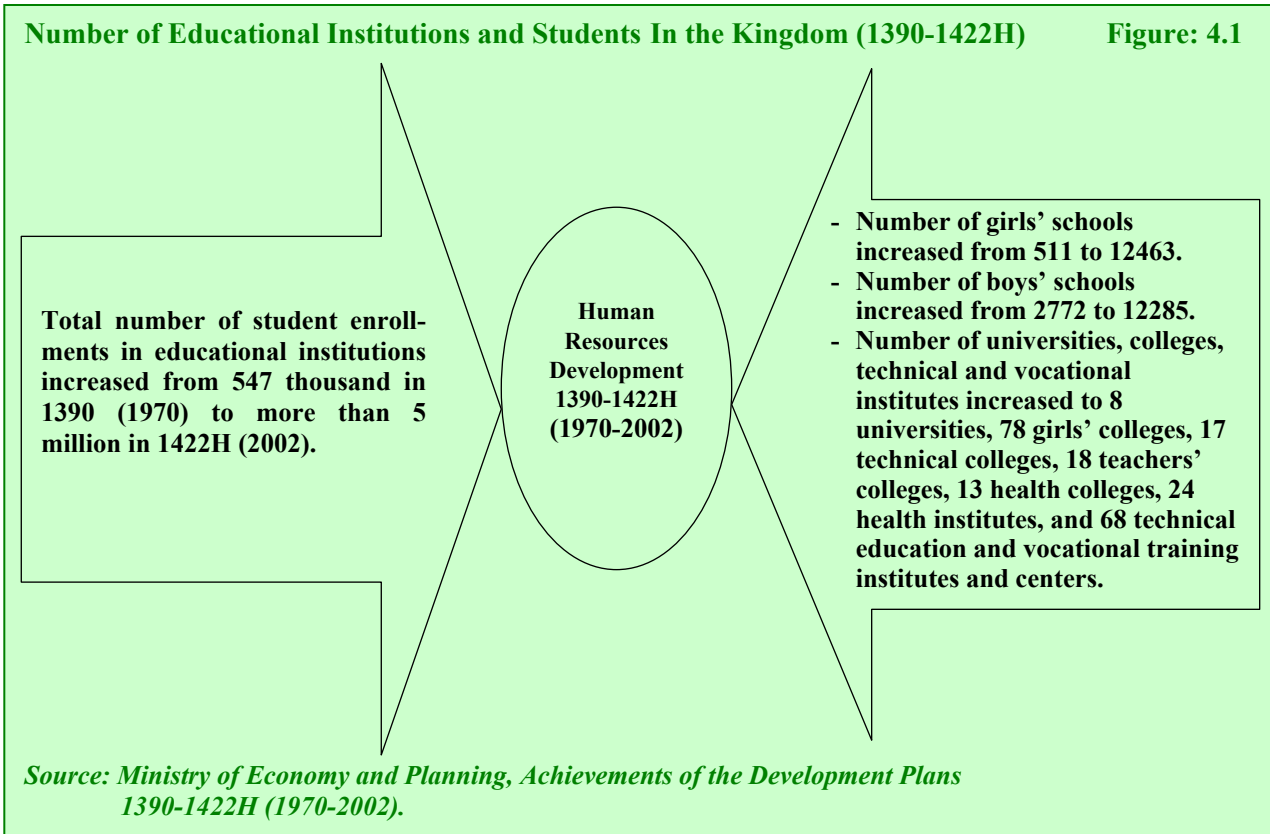
*Source: Ministry of Education, Ministry of Higher Education (Universities), Ministry of Education - Girls Education Affairs.*

which measures gross male/female student ratio (gender ratio) has fallen substantially from 2.2:1 male/female students in 1395H (1975) to 1:1 male/female students in 1422/1423H (2002).

- \* The above trend holds true for all educational stages, albeit with varying degrees. One of the most striking aspects in this respect is the significant increase in female enrolments for secondary and tertiary education. The gender gap has narrowed from 3.2:1 to 1:1 male/female students for secondary education, and from 4.4:1 to 1:1 male/female students for tertiary levels.
- \* Significant increase in enrolment ratios

at the tertiary level, particularly during the past decade. It is a result of students' strong desire and ability to utilize the increased availability of higher education opportunities, coupled with the emphasis placed on expanding higher education to meet increasing demand for qualified manpower.

- \* Establishment of a system for technical education and vocational training to meet the growing demand for specialized skills of a rapidly diversifying economy. Total enrolment in technical education reached 52.13 thousands in 1422H (2002), and 13.33 thousand trainees were receiving vocational training. In addition, the private sector has been providing



training programs in various fields. More than 45 thousand students received technical and vocational training during the year 1422/1423H (2002) of whom more than 99 percent successfully completed the training programs. About 89 thousand trainees received training courses through programs implemented by other government agencies. More than 93 percent of these trainees successfully completed these programs.

The following important points, however,

should be noted in connection with enrolment ratios due to their bearing on the computation of the Human Development Indicator.

- Table 4.2 shows the trend of gross enrolment ratios by sex and educational level, during the period 1395-1420H (1975-2000). These estimates reflect growth of the number of students by educational level and by sex, as well as population growth rates by age group. As the figures in Table 4.2 and in Figure 4.2 indicate, the impressive rise in the combined gross enrolment ratios has been

**Enrolment Ratio by gender and education level  
1395 – 1420H (1975 – 2000) (%)**

**Table 4.2**

Levels Year	Primary level			Secondary level			Tertiary level			Combined gross enrolment		
	male	female	Total	Male	Female	Total	male	female	Total	male	female	Total
1395H (1975)	64.0	36.0	50.7	15.0	4.9	10.1	10.7	2.5	6.7	44.1	23.0	33.9
1400H (1980)	72.5	42.8	57.8	25.1	11.7	18.5	14.1	7.0	10.6	51.4	29.6	40.7
1405H (1985)	78.2	56.0	67.3	30.5	21.8	26.2	18.0	10.1	14.1	57.4	40.4	49.0
1420H (2000) *	97.5	94.5	96.0	92.8	88.2	90.5	55.9	58.0	57.0	87.1	84.5	85.8

\* *According to the findings of the Demographic Survey 2000.*

*Source: Ministry of Economy and Planning – Central Department of Statistics.*

the result of the significant rise in enrolment ratios for secondary and tertiary education, particularly that of females. In this respect, female enrolment ratios at the secondary education level have risen from only 4.9 percent in 1395H (1975) to 88.2 percent in 1420H (2000). At the tertiary level, however, female enrolment ratios are more striking, having increased from 2.5 percent to about 58 percent over the same period, thus exceeding male enrolment ratio. It is equally important to highlight the fact that overall enrolment ratios for females at the secondary and tertiary levels have more than doubled over the last ten years.

- It should be noted that gross enrolment ratios reflect quantitative achievements in education. They do not, however, express

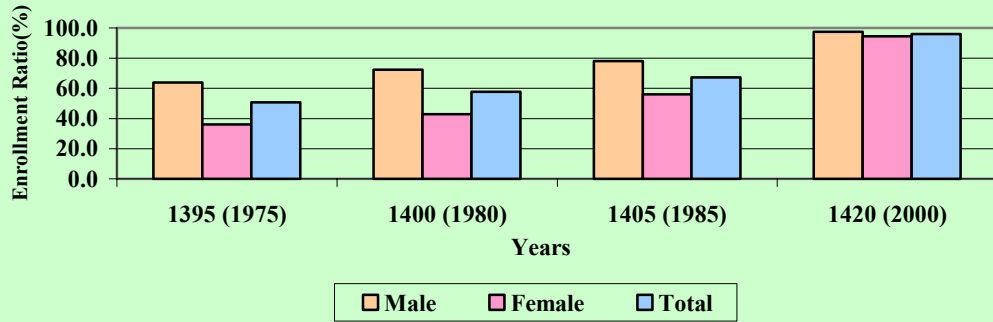
quality aspects of the educational system, nor are they likely to reveal some problems, such as lack of conformity between the educational system programs and the labor market requirements (External Efficiency), or the waste of resources due to higher repetition and dropout rates (Internal Efficiency).

The rapid expansion of enrolment in general education over the plan period, particularly in small schools located in remote villages and hamlets, has been accompanied by a fall in pupil-teacher ratios at both primary and secondary levels. The ratio fell from 19.5 pupils per teacher to 13.2 pupils per teacher in the primary level, and from 14.8 to 12.9 pupils per teacher in the secondary level in 1420H (2000). But enrolment in theoretical

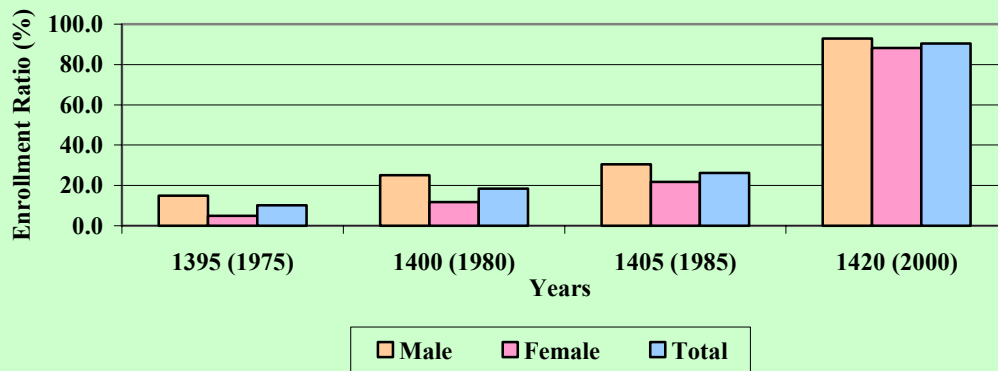
**Enrolment Ratios by Gender and Education Levels**

**Figure 4.2**

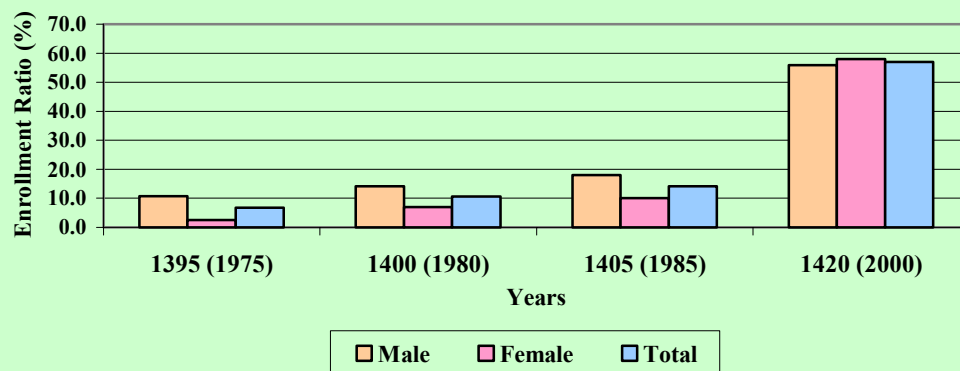
**Primary Level**



**Secondary Level**



**Tertiary Level**



*Source: Ministry of Economy and Planning – Central department of Statistics, Demographic Survey, 2000.*

higher education enrolment, fell from 11.2 percent in 1405H (1985) to 4.7 percent in 1422H (2002), while secondary technical enrolment, as a percentage of total secondary enrolment, fell slightly from 6.6 to 5.3 percent over the same period. Work is underway to approve a national science and technology policy, which will take into consideration the need to adopt national measures designed to upgrade capabilities of Saudi citizens in scientific and technological fields. The policy will also propose mechanisms and incentives to boost enrolments in science and technology disciplines.

## Expenditure on Education

The priority given to making education available to all Saudi citizens is reflected in the rapidly increasing budgetary allocations for the sector. Thus, the share of GDP going to education has more than doubled over the last thirty years, rising from 3.5 percent in 1390H (1970) to 9.5 percent of GDP in 1422H (2002); which is significantly higher than the corresponding average share for both “Middle income” developing countries (4.9 percent) and the countries of the Middle East and North Africa (5.2 percent) (Table 4.3). Moreover, not many countries in the world have achieved similar or higher rates. During

**Public Expenditure on Education**

**Table 4.3**

	Expenditure on Education as Percent of GDP	Share of total expenditure by level (%)	
		Primary and Secondary Education	Tertiary Education
Saudi Arabia			
1390H (1970)	3.5	59.1 <sup>(1)</sup>	39.8 <sup>(1)</sup>
1405H (1985)	7.3	70.4	29.6
1419H (1999)	7.9	84.7	18.2
1420H (2000)	9.1	82.2	17.8
1421H (2001)	8.03	*	*
1422H (2002)	9.5	*	*
Middle Income Countries (1997)	4.9	--	--
Middle East and North Africa (1997)	5.2	--	--

(1) Data for 1974. -- Not available.

\* Actual expenditure data not available.

Source: Ministry of Education, World Development Indicators, (March 2000).



the Sixth Plan period, 51.5 percent of all actual development expenditures for different sectors was allocated to education. The high priority given to education in the Kingdom is further illustrated by the fact that while budgetary allocations for education were being increased, restraints were being imposed on overall government expenditures.

With the rapid expansion in general education enrolment, its share in total public expenditures on this sector has increased from about 70.4 percent in 1405H (1985) to 82.2 percent in 1420H (2000) (Table 4.3).

Government's encouragement of the private sector, particularly in recent years, to participate robustly, in offering educational services highlights its intention to control government expenditure on education while increasing overall quantity and quality of education services.

### **Role of the Private Sector in the Provision of Education Services**

The private sector has been playing an increasing role in financing the expansion of education services. Direct education services in all stages of education are being provided

by the private sector. Thus far, licenses for the establishment of 55 private colleges in the various regions of the Kingdom have been issued. The private schools today absorb about six percent of all students in the Kingdom. The government's assistance to private education, provided through the Ministry of Education, includes providing text books and undertaking supervision, in addition to financial and in-kind assistance.

The Seventh Plan emphasizes the need for further expansion of the role of the private sector in the provision of education services to account for ten percent of the total enrolment in the general education system by the end of the Plan period 1424/1425H (2004). At the higher education level, the Plan envisages the establishment of additional private colleges. An enhanced private sector role in the provision of training and requalification for graduates in conformity with labor market needs is also envisaged.

The consolidation of the role of the private sector in the provision of education services is expected to provide efficiency gains and better performance. However, further integration of both the government and private sector's

initiatives is needed in order to ensure continued access to high quality basic education for all children in the Kingdom. At the same time, developmental policies should focus on increasing the capacity of the government sector to set educational standards, and to offer incentives to stimulate private sector's participation in the provision of educational services.

### **Efficiency of the Education System**

According to the findings of several studies, growth in per capita income is usually associated with positive changes in productivity, employment rates, aggregate manpower participation rates, and the demographic structure of the population. The findings further show that maintaining the pace of growth of the Saudi economy would essentially require increased productivity as a basic policy option. On the other hand, the efficiency of educational planning should be judged within a wider framework of social costs and benefits. While a comprehensive assessment of the costs and benefits is not included in this report, efforts should be made to introduce improvements in the internal and external efficiency of the educational system, as a prerequisite to achieving the targets

relevant to the educational profile of manpower. Reducing the average unit cost per student, *ceteris paribus*, could lead to economies of scale from expansion of education, while ensuring, in turn, that internal efficiency is duly improved.

The analysis of cost aspects provides, at best, only a partial view. Thus, it is necessary to assess the efficiency of manpower and education planning via determination of the success of graduates of the system of education in the labor market, i.e. the external efficiency of the education/training system.

The rapid expansion of education services and the significant resources devoted to that end make the issue of the education system's efficiency one of utmost importance. This concern is reflected in the increasing emphasis placed, in the development plans of the Kingdom, on the issue of efficiency.

### **Education Issues and Policies in the Seventh Development Plan**

#### ***Objectives and Strategic Directions:***

The Saudi education system lays special emphasis on developing the spiritual, social and ethical potentials of the citizen,

establishing positive social attitudes towards work and developing skills needed to enable citizens to become productive members of the society and to participate in achieving the sublime goals valued by the society. Furthermore, the system places emphasis on safeguarding and developing the heritage of the nation, as well as achieving social solidarity and stability.

Within this framework, educational policies for all educational stages are interrelated and based on the general objectives and strategic principles of the Seventh Development Plan 1420-1425H (2000-2004). These policies may be summed up as follows:

- Making primary education mandatory for all boys and girls.
- Updating and developing educational curricula and teaching methods, and upgrading the level of teachers and educational aids to meet the actual needs of the society.
- Addressing the problem of drop-outs at all levels of education.
- Placing greater emphasis on scientific and applied research in universities and research centers.
- Encouraging the private sector to

participate in expanding the base of higher education.

- Directing admission policy in higher education institutions in conformity with labor market requirements.
- Paying attention to extra-curricular activities at all levels of education.
- Ensuring integration and flexibility of all streams of education.
- Expanding the base of higher education and considering the possibility of making use of new methods of education such as the “open university” and “distance learning.”

### *Issues and Policies:*

Impressive advances have been made over the past three decades in eradicating illiteracy and preparing Saudi youth to assume an active role in a modern and demanding economic environment. However, education in the Kingdom still faces numerous issues and challenges, as is the case in many other countries which experience very rapid expansion in their education systems.

In addition, technological and economic trends at the global level, and the trend in the world economy away from the “resources”

based economy towards the “knowledge” based economy of the information age, make the need for effective education policies more important than ever. Although advances in education and enrolment at different levels of education have indeed increased learning opportunities and access to information, these new global trends make it imperative to improve the quality of education at all levels. This has to be done while ensuring general access to basic education. In this respect, the Kingdom endeavors to adopt a national science and technology plan which comprises many mechanisms and measures to address these issues and policies, so that the educational system will become increasingly integrated within the planned framework.

### ***General Education:***

As a result of the rapid expansion in basic education, the spread of education among Saudi youth is almost universal. Implementation of the Seventh Development Plan’s approved objective of making primary level education mandatory for both boys and girls has contributed to further spread of education among youth. Against this background, future policies will strengthen this direction which seeks to achieve the basic

educational standards already reached in advanced countries by continuing to expand primary and secondary education facilities in line with population growth and the growing demand for education. A related priority is to further increase enrolment ratios by ensuring that parents comply with the requirements for children’s school attendance, reducing drop-out rates and giving special assistance to those children who have learning difficulties.

Achieving these aspirations along with improving the Kingdom’s education sector statistics, would ensure that the Kingdom’s rating according to the UNDP human development index, accurately reflects its impressive educational achievements.

As the number of elderly people who never received formal schooling diminishes, Saudi Arabia’s achievements in making basic education generally available on a wide-scale will be more accurately reflected in its human development index.

The pre-school stage is considered to be decisive in the upbringing of children and their acquiring of good habits and positive social attitudes. Thus, further expansion of the

kindergarten education will enhance children's capabilities for comprehension during later stages of their education.

The rapid expansion of the Kingdom's education system over the past three decades has given rise to several efficiency challenges, including efficiency of teachers, adequacy of school facilities and curricula. Given the increasing expenditure on basic education, further efforts must be made to improve internal and external efficiency of the education system, with an aim to rationalize the increasing costs of the education process.

Given the teacher's pivotal role in the education process, high priority should be given to further improving teachers' qualifications. Continued upgrading of teachers' knowledge in the domains of science and culture as well as their pedagogical and technical skills will remain a key priority.

Furthermore, the very low pupil-teacher ratios, averaging about 13.1:1 for general education in 1420H (2000), points to an urgent need for rationalization without comp-

romising teaching standards.

The rapid expansion in the number of students in the general education system has also necessitated resort to leasing school buildings that lack certain requirements necessary for proper instruction. This issue will have to be addressed through gradual phasing out of leased buildings to avoid the adverse impacts on students' academic achievements. On the other hand, the high share of leased school buildings, currently about 61.5 percent of the total number of schools, constitutes a financial burden on the Ministry of Education.

Development of the general education system calls for greater emphasis on aspects related to understanding, assimilation, analysis, deduction and problem solving required to ensure that students develop the skills required in today's competitive economy which relies on science, information and technology.

Despite the significant reduction in the proportion of repeaters, a problem has emerged with respect to the average number of years spent by a student for graduation from the secondary level. Similarly, drop-out rates have also remained high, resulting in

additional burdens on the government's education budget.

A far-reaching challenge for the national economy lies in the rapid growth in the number of secondary stage graduates and economy's ability to absorb them in productive employment and/or higher levels of education and training.

### ***Higher Education:***

Higher education institutions are currently unable to absorb all applicants, despite the steady rise in the number of universities and colleges. Prolonged persistence of this situation could create economic and social challenges resulting from the increasing number of secondary stage graduates not admitted to higher education. Intensive efforts and additional resources are therefore needed to expand the absorptive capacity of higher education. Rigorous standards should be established for entry into the different disciplines in higher education in accordance with the needs of the labor market. Secondary stage graduates should be encouraged to join technical education and vocational training institutions.

The pressure resulting from increasing demand for higher education has caused universities to admit more students than their absorptive capacities would normally allow. This poses a challenge as regards internal as well as external efficiency of some higher education institutions, where the ratio of graduates to new entrants is still less than one. This is also reflected in the imbalances between the qualifications acquired by graduates and the labor market needs.

About two-thirds of the total number of male and female students in higher education graduate with degrees in humanities and in fields that have an oversupply in the labor market. This problem is particularly evident in the case of female graduates. Thus, further attention should be given to this issue. It should include evaluation and development of curricula and special training programs, designed in cooperation with the private sector, to ensure better employment prospects for Saudi graduates as well as increased focus on developing initiatives for creation of productive job opportunities.

The Seventh Development Plan is keen to address these issues by calling for the

expansion of the higher education base in line with the requirements of the socio-economic development of the country, and for directing the admission policy and developing educational programs and curricula in line with labor market needs. The Plan also calls for a greater private sector participation in the education sector. According to the plan projections, the number of new entrants in the Kingdom's universities and girls colleges will reach 490 thousand by the end of 1425H (2004), of which 286.5 thousand (58.5 percent) will be females and 203.5 thousand (41.5 percent) will be males.

The Seventh Plan highlights the need to encourage cooperation and coordination between higher and technical education, vocational training institutions, and the relevant agencies that benefit from their output. The plan also stresses the importance of both horizontal and vertical expansion of various areas related to technical education and vocational training.

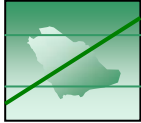
Offering high quality training programs and increasing the use of advanced technology should lead to a significant improvement of Saudi manpower competitiveness. The

Seventh Development Plan presents policies and programs as well as other relevant recommendations that are designed to achieve the desired objectives. This plan pays particular attention to administrative development, community services, and the construction of necessary facilities equipped with the latest technology. Great efforts are needed in order to facilitate better understanding and awareness regarding technical and vocational education. Such awareness is a an essential condition for creating a positive social attitude toward related occupations and skills.





## CHAPTER FIVE



# LABOR AND HUMAN RESOURCES

This chapter addresses the issue of labor and human resources. It reviews the progress of the Kingdom's economic growth and employment indicators, over the period 1390-1422H (1970-2002), then examines the population structure according to age groups and the rates of participation in the labor market. The chapter highlights the occupational structure, sectoral distribution of employment, and the share of Saudi nationals within each category.

### Human Resources Development and Development Plans

The development of human resources has consistently figured as a central feature in the Kingdom's development efforts as expressed in the successive development plans launched since 1390H (1970). These plans have paid increasing attention to human resources development through continuous support of education at all levels, including technical education, vocational training and pre-service and in-service training; and through their emphasis on improving the health situation of the population at large. The result of these

efforts has been reflected in a significant increase in the productive employment of Saudis and steady upgrading of their skills and occupational achievements.

The First Plan 1390-1395H (1970-1975) and the Second Plan 1395-1400H (1975-1980) emphasized the need to import foreign labor in sufficient numbers to keep pace with the fast growing capital accumulation and infrastructure development. The Third Plan 1400-1405H (1980-1984) paid particular emphasis on human resource development by giving greater importance to the following strategic objectives: the need to improve the quality of education and training; enhance the responsiveness of the educational system to match the requirements of economic development and the labor market; and achieve the quantitative expansion of education and training facilities in a balanced manner. In a move to encourage enrolment in technical education institutions, this Plan also set specific enrolment targets for the various stages and types of post-intermediate education.

The Fourth Plan 1405-1410H (1985-89) emphasized that manpower policy should shift its focus away from the government sector, where Saudi nationals were earlier encouraged to join, to respond to the exigencies of the earlier stages of development, towards more employment in the private sector. This Plan also included targets for Saudization and creation of more job opportunities for Saudis through accelerated economic growth and substitution of Saudis for non-Saudis. In addition, the plan targeted the reduction of the expatriate workforce, through improved productivity of Saudi labor force, and the private sector's response to the directions of Saudization.

Subsequent plans continued paying attention to human resources development as a necessary requirement for achieving sustainable development in the Kingdom. Under the current global conditions of increasing economic globalization and accelerated technological developments, particularly in the field of information and communications technology, improved quality and productivity of labor will become the key means of enhancing the Kingdom's facilitating integration in the global economy

and promoting assimilation on advanced scientific innovations and technologies.

## **Economic Growth and Employment**

GDP data for the period 1390 to 1422H (1970-2002) (Table 5.1) reveal that the Saudi economy has gone through several cycles of varying duration and intensity. To examine the relationship between employment and the state of the economy, employment rates in the private sector have been calculated for the different phases of the economic cycles.

Before drawing conclusions from this data (Table 5.1), the following clarifications may be noted:

1. Foreign manpower accounts for a dominant share of employment in the private sector, The rates shown in table 5.1 reflect growth of employment in this sector, particularly growth trends of non-Saudi manpower.
2. Saudi manpower is growing at fixed rates due to influences of demographic, economic and social factors, which are unlikely to change radically in the short and medium term. The high labor elasticity to changes in the growth rate of

**Private Sector Employment During Various Economic Stages****Table 5.1**

Stage	Period	Average Annual Growth (%)	
		GDP	Private sector employment
High growth I	1390-1394H (1970-1974)	14.5	5.0
High growth II	1395-1401H (1975-1981)	7.6	33.2
Recession	1402-1407H (1982-1987)	(4.3)	5.8
High growth III	1408-1411H (1988-1991)	7.3	(3.6)
Low growth	1412-1416H (1992-1996)	1.0	6.8
Low growth	1416-1422H (1996-2002)	1.9	2.36

**Note: Brackets indicate negative value.**

**Source: Ministry of Economy and Planning.**

the GDP, as reflected by the data of the table, is in fact related to non-Saudi manpower.

Table 5.1 shows that the growth rate of employment in the private sector peaked during the period 1395-1401H (1975-1981), as a result of the sharp rise in oil prices. In spite of the economic slow down that lasted from 1402 to 1407H (1982-1987), during which the economy posted a negative growth rate, employment rate grew positively by 5.8 percent. This can be attributed to optimistic expectations on the part of businessmen of the likely rise of growth rates in the future. It is to be noted that the only period of negative growth in employment has been the period, 1408-1411H (1988-1991), although the economy witnessed a positive growth rate of

7.3 percent. This situation, however, was a natural outcome of the business expectations during the previous business cycle, a matter which made businessmen cautious in expanding their activities.

The structure of private sector employment, as shown in Table 5.2, has also changed dramatically over the period 1395-1422H (1975-2002). The share of the producing sectors in total private employment declined from 65.8 percent in 1395H (1975) to 37.8 percent in 1422H (2002), while that of the services sectors jumped from 34.2 percent to 62.2 percent over the same period. The share of community, social and personal services sector in total private sector employment increased from about 44.9 percent in 1395H (1975) to 57.9 percent in 1422H (2002).

**Structure of Employment in the Private Sector,  
Selected Years (percent)**

**Table 5.2**

	<b>1395H (1975)</b>	<b>1400H (1980)</b>	<b>1405H (1985)</b>	<b>1410H (1990)</b>	<b>1415H (1995)</b>	<b>1422H (2002)</b>
Total for producing sector	65.8	55.5	54.0	35.4	35.9	37.8
Total for service sectors	34.2	44.5	46.0	64.6	64.0	62.2
Community, social and personal services as % of total services	44.9	52.1	47.6	55.4	56.7	57.9
<b>Total private sector</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Note: Based on institutional classification of GDP.**

*Source: Ministry of Economy and Planning.*

## **Population and Participation in the Labor Force**

A characteristic feature of the Kingdom's population is the presence of a high proportion of non-Saudi residents, comprising expatriate labor and their families. According to population projections based on the population census in 1413H (1992), the total population of the Kingdom is estimated at about 23,374,630 in 1422H (2002), including 6,030,989 non-Saudis. Non-Saudi population represented about 34.8 percent of total Saudi population.

However, the above percentage varies in terms of the age structure of the population. In fact, the proportion of non-Saudis is highest within the 25-54 years age bracket of the population. As males constitute a high proportion of the non-Saudi population, it is

to be expected that the population distribution by gender will favour males in this age bracket of 25-54 years.

Available data on the Saudi population indicate that the current population structure as well as future trends are influenced by historical growth patterns. This is particularly true with regard to the population in working age.

A major feature of population projections by the Central Department of statistics, Ministry of Economy and Planning, is reflected in the demographic shift from a high birth rate of 41 to about 32 births per thousand of the population by 1430H (2010). In the meantime, mortality rates are also expected to drop from 6.04 to 3.33 deaths per thousand of the population. This implies a slowdown of

<b>Percentage Distribution of Population at Working Age by Work Status and Gender</b>			<b>Table 5.3</b>
	<b>Male</b>	<b>Female</b>	<b>Average (Male/Female) (%)</b>
Participation in the labor force <sup>(1)</sup>	62.2	10.0	36.0
Non-participation in the labor force <sup>(2)</sup>	37.8	90.0	64.0
<b>Total population at working age</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(1) Includes population with economic activity whether employed or job seekers.  
(2) Includes students, housewives ... etc.

Note: Total population at working age stood at 9542.2 thousand, of which 4749.5 thousand males and 4792.7 thousand females for (2002).

Source: Ministry of Economy and Planning, CDS, manpower Bulletin, 1422 (2002).

the population growth rate from 3.7 percent in 1413H (1992) to about 2.4 percent in 1440H (2020).

Accordingly, the Saudi population is expected to grow from 16.20 million in 1420H (2000) to about 18.52 million in 1424H (2004), at an average annual growth rate of 3.4 percent. It is estimated that Saudi population will then grow to 29.7 million in 1440 (2020), at an average growth rate of 2.4 percent per year. The number of Saudi population is expected to double by 1442H (2022) reaching around 32 million.

The current age structure of the population indicates that the age group 0-14 years constitutes the dominant category, accounting for about 45 percent of the total population.

This group is expected to grow at an annual rate of about 2.3% over the next two decades. In parallel with this, a relatively higher growth rate of 3.9 percent, is projected for the Saudi population in the working age group, particularly within the next ten years.

As a result, the population structure is expected to shift in favor of the population in the working age group, or the potential manpower. This means, in turn, that rising trend will be seen in the number of new entrants to the labor market, as a result of the population growth, regardless of changes in manpower participation rates.

According to Table 5.4, the total participation rate of the Saudi population in the work force was far below aspirations. Such a low

participation rate is attributable to several factors. Key among these are: the high proportion of population under working age (about 45 percent of total Saudi population); the high percentage of house-wives (about 60 percent of female population at working age) as well as the fact that enrolments in secondary and tertiary level education comprise about 29.4 percent of total population at working age.

However, in view of the growing number of female graduates, more women are expected to participate in production activities. This will boost female participation in the socio-

economic development.

It is worth noting, however, that the rise in the participation rates of educated females, will serve as a driving force that will boost overall participation in the labor force. It is noteworthy that female participation rates in 1422 (2002) amounted to 78.5 percent for holders of diplomas and 75.6 percent for holders of bachelor degrees.

Table 5.4 shows Saudi population distribution and participation rates in labor force, by gender and age group.

<b>Population, Manpower, and Participation Rates by Gender and Age Group 1422 H (2002)</b>							<b>Table 5.4</b>		
<b>Age group</b>	<b>Total Saudi Population (%)</b>			<b>Participation rates(%)</b>			<b>Work force distribution(%)</b>		
	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
< 15	45.5	44.4	45.0	00	00	00	00	00	00
15 – 19	11.1	11.0	11.0	8.3	0.4	4.4	2.7	0.9	2.5
20 – 24	9.4	9.3	9.4	46.1	12.4	29.4	12.8	20.9	14.0
25 – 34	13.7	13.8	13.7	90.1	21.0	55.6	36.4	52.1	38.6
35 – 44	9.0	9.2	9.1	95.8	11.3	53.4	25.5	18.6	24.5
45 – 54	5.4	5.6	5.5	84.7	5.5	44.6	13.6	5.5	12.5
55 – 64	3.1	3.5	3.3	65.0	2.3	32.2	6.0	1.5	5.4
>65	2.7	3.2	2.9	37.9	1.0	17.9	3.0	0.6	2.6
>15	54.5	55.6	55.0	62.2	10.0	36.0	100.0	100.0	100.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>				<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total pop./ work force (thousand)</b>	<b>8717.8</b>	<b>8625.8</b>	<b>17343.7</b>				<b>2953.7</b>	<b>479.8</b>	<b>3433.5</b>

*Source: Ministry of Economy and Planning, Central Department of Statistics.*

As the data in this table reveals, the main characteristics of the age and gender structure of the Saudi population/workforce, include the following.

- Participation rates peak at the age group 25-54 years, where an individual has completed all his education stages, on the one hand, and has not yet reached the pension age on the other hand.
- Based on population growth forecasts, national labor supply is projected to increase from 3.17 million in 1419H (1999) to 3.99 million in 1424H (2004), and to 8.26 million in 1440H (2020), at an average annual growth rate of 4.7 percent over the entire period.

Table 5.5 depicts the percentage distribution of the population aged 15 years and above, participation rates and labor force respectively, by gender and academic qualification. The data of this table shows the following:

- The impact of the educational level on participation in the labor market is evident. This is particularly the case for female participation, which increases from 10.4 percent among graduates of secondary level education, to 78.5 percent among holders of diploma, and to 75.6 percent among holders of bachelor's degree. This is reflected in the distribution of female workforce relative to distribution of

<b>Population (15 years and above), Work Force, and Participation Rates, by Educational Status and by Gender 1422H (2002)</b>							<b>Table 5.5</b>		
<b>Educational status</b>	<b>Population (%)</b>			<b>Participation rates (%)</b>			<b>Work force (%)</b>		
	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
No formal qualifications	17.2	40.8	29.3	63.8	1.53	19.32	17.6	6.2	17.6
Primary	23.3	15.3	19.2	59.2	1.28	35.48	22.0	2.0	22.0
Intermediate	26.1	18.2	22.0	49.8	1.12	29.10	20.7	2.0	20.7
Secondary	18.9	16.3	17.5	58.7	10.36	35.67	17.7	16.8	17.7
Under-graduate diploma	3.9	3.0	3.4	92.0	78.51	85.90	5.7	23.7	5.7
Bachelor's degree	9.6	6.3	7.9	95.7	75.63	87.47	14.6	47.4	14.6
Post graduate studies	1.1	0.2	0.6	97.5	85.24	95.25	1.7	1.9	1.7
<b>Total educational qualifications</b>	<b>82.9</b>	<b>59.3</b>	<b>70.6</b>	<b>62.6</b>	<b>10.03</b>	<b>35.57</b>	<b>82.4</b>	<b>93.8</b>	<b>82.4</b>

*Source: Ministry of Economy and Planning, Central Department of Statistics.*

female population in the age bracket 15 years and above by educational level. This indicates that female participation in economic activities is likely to experience major improvement due to the considerable increase in female enrolment in various levels of education.

- There is a strong positive correlation between graduation levels and the rate of participation for male population. This has significant implications for the quality of job opportunities which should be provided to ensure higher employment rates as the level of education increases.
- The education profile of the male population/workforce is homogenous, except for the obvious difference in the case of tertiary level graduates. On the other hand considerable disparity is noted in the education structure of the female population/workforce. Women with formal educational qualification, accounted for about 93.8 percent of the total female workforce in 1422H (2002), while they accounted for only 59.2 percent of total female population. This clearly reflects the impact of expansion of female education on stimulating their participation in economic activities.

## **Manpower and Employment**

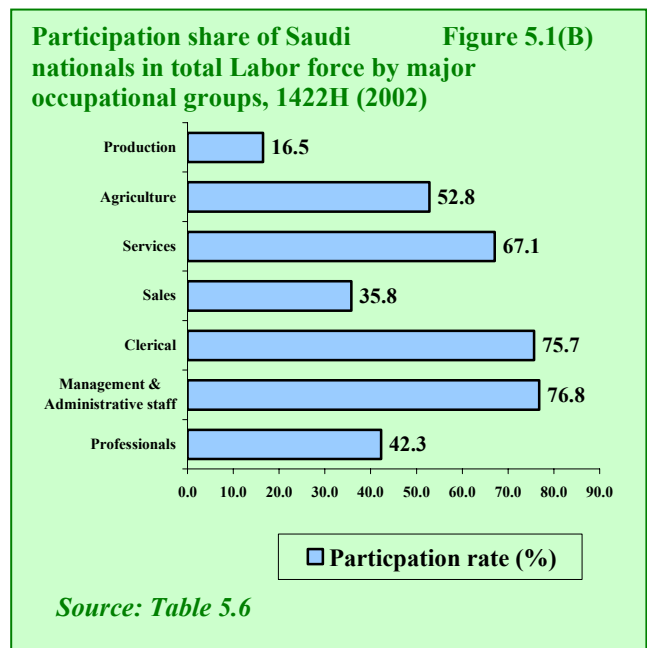
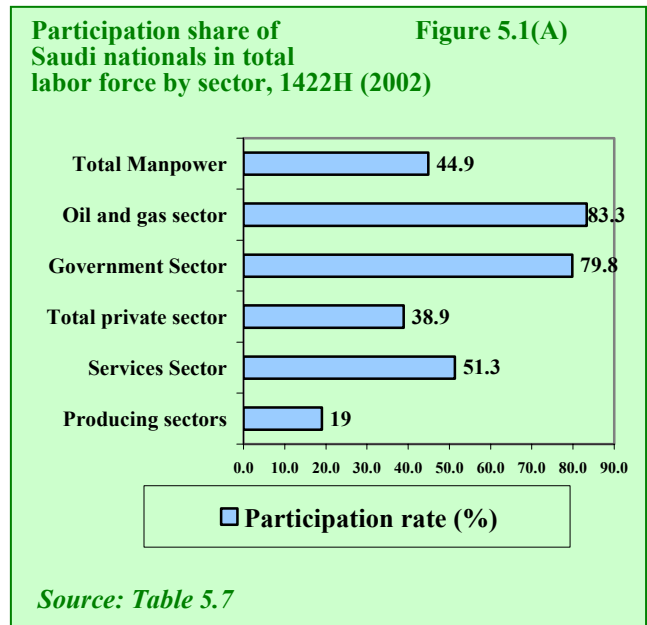
Employment rate is the measure through which the relationship is established between the workforce available in society, on the one hand, and employment and unemployment, on the other. The value and trend of the employment rate determines the nature of labor market imbalances as well as the implications for policies and measures launched to correct these imbalances. In the light of the Kingdom's labor market conditions with its excess demand for labor, reliance on foreign labor to narrow the gap between supply and demand suggests that the employment ratio exceeds one. This situation implies full employment of the available supply of national manpower. The objective of the Saudization policies, during intermediate gradual phases and ultimate goal, is to correct this situation through gradually reducing reliance on foreign labor until a stage is reached where the national labor force will occupy all jobs and operate all activities in the national economy. In other words, when a deficit of zero percent and an employment ratio of almost 1 percent are attained.

It should be stressed, however, that



unemployment has been a concern for both the policy makers and society at large. This is due to the fact that unemployment seems incongruous with the Kingdom's labor market situation, in view of the presence of large numbers of non-Saudi labor. Studies conducted by the Central Department of Statistics (CDS), Ministry of Economy and Planning, indicate that the unemployment rate in the Saudi economy stood at about 9.66 percent in 1422 (2002).

Studies confirm that unemployment in Saudi society is not attributable to deficiency in aggregate effective demand as it is the case with deflationary unemployment. Evidence to the contrary presents itself in the excess demand for labor and the presence of large numbers of foreign labor. The un-employment that exists is of the structural type which results from the fact that job seekers' qualifications and training levels do not match the requirements of the jobs on offer. In other instances, job seekers' occupational and training characteristics may conform to the requirements of the jobs on offer, but the mismatch, or non-conformity, lies in the difference between the conditions tied to the jobs on offer (or supply price) and the

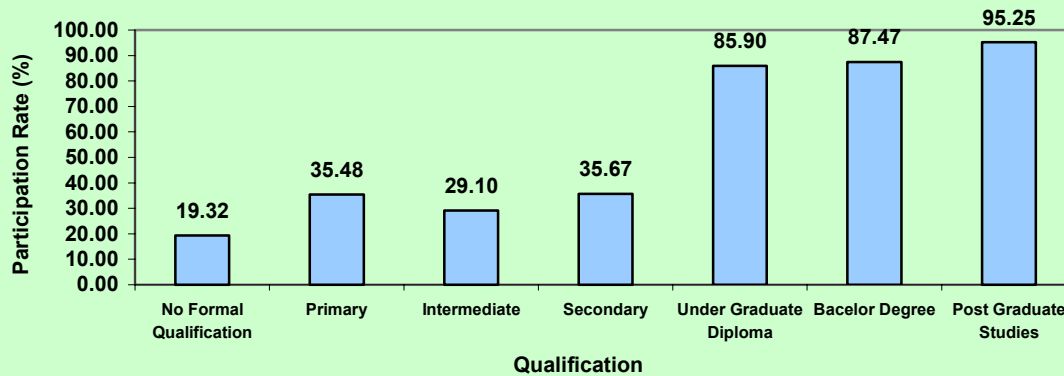


conditions acceptable to job applicants (demand or reservation price).

A further reason for such mismatch relates to the spatial dimension. In this instance, job

**Participation Rates of Saudi National in the Labor Market by Qualifications**

**Figure 5.2**



*Source: Table( 5.5)*

opportunities with adequate conditions are available, but the jobs involved are located in remote areas relative to job seekers' places of residence.

However, structural imbalances in the labor market appear to be a key factor affecting the unemployment phenomenon. This particularly true for mismatches between education and training systems' output and the needs of the national economy, particularly in the private sector. While the labor market may show a deficit at the macro-level, surpluses exist at the micro/ structural level in certain disciplines and occupations, resulting mainly from earlier employment policies and the distribution of tertiary level graduates in favor of theoretical disciplines. Moreover, reasons

for unemployment may relate to reluctance on the part of national labor to work in certain categories of vocations, especially crafts and manual work, or to work in the private sector under prevailing wage scales and work conditions. Further reasons may have to do with the competition posed by the large number of foreign labor.

### **Occupational Structure of Employment<sup>(15)</sup>**

A comparison of the occupational structure of employment in the national economy, along with the occupational distribution of Saudi and non-Saudi manpower makes it possible to

(15) Analysis is confined to the first digit classification of the ILO International Standard Job Classification, (1968).

identify key labor market issues. In particular, such a comparison helps in the identification of issues pertaining to the attainment of a balance between demand and supply of the national manpower and the structural aspects of bringing educational output in conformity with the labor market requirements. The comparison also reflects the policy approach to address issues relevant to manpower, education and training, leading up to early attainment of the national objectives.

Table 5.6 shows the occupational structure of the economy for 1422H (2002) based on the inputs derived from the result of 1413H (1992) population census. This table reflects substantial differences in the occupational structure of Saudi and non-Saudi work force as shown below:

- Service workers constitute a considerable share (47 percent) of national manpower. Non-Saudi workers in production and related activities account for 49.5 percent of total expatriate work force in 1422H (2002). The high proportion of Saudi nationals employed in services sectors is attributed to the fact that this occupational category includes government services, such as health and

education, which accommodate a large number of citizens. It also reflects the fact that government is the main employer of Saudi nationals. In fact, this explains the high share of Saudi nationals (about 67.1 percent) in total employment within this category.

- The limited contribution of production and similar activities workers in total employment of Saudi nationals (about 11.9 percent). This explains the shortage in the number of mid-level technicians, semi-skilled and manual workers. Scarcity in this category in the light of the number of graduates from intermediate and secondary institutes and technical colleges poses a challenge for the general education and vocational training system. Such challenge calls for increasing the number of graduates from these institutes.
- Other occupational groups share at varying degrees in the relative importance in total employment of both Saudi nationals and foreign labor. It is worth noting, however, that Saudi nationals account for a high proportion of administrative and management jobs, to the tune of about 76.8 percent of total employment in both categories. This

**Manpower Structure by Major Occupational Groups and Nationality, (%) 1422H (2002)**

**Table 5.6**

Occupational group	Percentage share			
	Total	Saudis	Non-Saudis	Share of Saudis <sup>1</sup>
Scientific and technical professions	11.8	11.7	11.9	42.3
Managers administrative	1.7	2.9	0.7	76.8
Clerical	7.2	12.1	3.1	75.7
Sales personnel	7.2	5.9	8.4	35.8
Service workers	31.2	46.9	18.4	67.1
Agricultural workers	8.4	8.7	8.2	52.8
Production and similar workers	32.5	11.9	49.5	16.5
<b>All occupational groups (%)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	
<b>All occupational groups (number)</b>	<b>7,830,143</b>	<b>3,516,393</b>	<b>4,313,750</b>	<b>44.9</b>

**(1) Share of Saudi manpower in the total of the relevant occupational group.**

*Source: Ministry of Economy and Planning*

clearly testifies to the positive impact of Saudization policies, particularly the restrictions placed on employment of non-Saudis in certain jobs, and the encouragement given to private sector establishments to create further employment opportunities<sup>(16)</sup> for Saudis.

## **Sectoral Distribution of Employment**

Sectoral distribution of employment by nationality in 1422H (2002) (Table 5.7)

(16) Council of Ministers' Decree # 50, dated 21/4/1415 (1995), that makes it mandatory for private enterprises employing more than 20 persons to increase the number of their Saudi manpower by at least 5 percent of their total employees every year.

reveals major structural disparities for both Saudi and non-Saudi manpower. Generally, however, non-oil private sector appears to be the major source of employment in the economy.

On the other hand, comparison of sectoral ratios, by category of activity, points to disparity of employment by nationality. In this respect, non-Saudi labor is distributed equally between producing sectors and services sectors, 48.3 percent and 46.5 percent, respectively of total non-Saudi manpower. Saudi nationals, however, account for an overwhelming share within the services sectors, including government sectors, to the tune of 83.8 percent, compared to 14.1 percent within producing sectors.

In addition, the data included in Table 5.7 point to a relatively low participation by Saudi nationals in total employment within the non-oil private sector, 38.9 percent, compared to their participation share within government sectors, 79.8 percent, and crude oil and natural gas sector, 83.3 percent. Within the non-oil sectors, indicators of Saudization show a wide disparity due to the factors that have a bearing on the labor market, as mentioned earlier in this chapter.

It is worth noting that earlier employment trends point to a high rate of employment for Saudi Nationals in the Government. This trend has however moderated due to saturation of employment opportunities in the government sector as a result of policies designed to curb expansion of government agencies. Therefore, man-power in the Kingdom should be reoriented away from the government sector, focusing, instead, on meeting the requirements of the private sector.

### **Labor and Employment Issues**

The analysis in this chapter revealed a number of issues and constraints relating to labor and employment in the Kingdom that can be

expected to persist in the short and medium-term.

First, there is the issue of increased reliance on non-Saudi manpower, and the rising deficit in the balance of the labor market. This has been the result of the relatively low participation rate of Saudis in the workforce coupled, on the other hand, with growing demand for labor by the private sector –both formal and informal– and the household sector. Against the backdrop of this situation, the Kingdom’s human resources development strategy lays emphasis on availability of sufficient supply of qualified national manpower to achieve development objectives, as well as on curbing growth and rationalizing recruitment of non-Saudi manpower.

Second, despite the low rate of aggregate female participation, a breakdown of participation rates by educational status testifies to a direct relationship. Female participation amounts to 40.5 percent among graduates of the tertiary level of education, and rises to 78.5 among holders of female teachers’ training diploma. This proves the fact that female education has enhanced

**Distribution of Manpower by Main Economic Activity and Nationality,  
1422H (2002)**

**Table 5.7**

Economic activity	Manpower distribution (%)			Share of Saudis (%)
	Total	Saudis	Non-Saudis	
Agriculture	7.1	6.9	7.4	42.5
Non-oil mining	0.2	0.4	0.1	74.7
Oil refining	0.3	0.5	0.1	77.0
Petrochemicals	0.3	0.2	0.3	32.3
Other industry	6.9	2.1	10.7	13.9
Electricity and water	1.2	1.8	0.8	65.2
Private sector construction	16.9	2.2	28.9	6.0
<b>(1) Total producing Sectors</b>	<b>32.9</b>	<b>14.1</b>	<b>48.3</b>	<b>19.0</b>
Trade	13.7	7.1	19.2	23.1
Transport and communication	4.0	5.2	3.1	57.8
Financial & real estate services	4.3	2.8	5.7	28.3
Community & personal services	30.4	45.0	18.5	66.5
<b>(2) Total services sectors</b>	<b>52.4</b>	<b>60.1</b>	<b>46.5</b>	<b>51.3</b>
<b>(3) Total private sector (1+2)</b>	<b>85.3</b>	<b>74.2</b>	<b>94.8</b>	<b>38.9</b>
<b>(4) Government services</b>	<b>13.3</b>	<b>23.7</b>	<b>4.9</b>	<b>79.8</b>
<b>(5) Crude oil and gas</b>	<b>1.3</b>	<b>2.3</b>	<b>0.4</b>	<b>83.3</b>
<b>Total manpower (3+4+5)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>44.9</b>
<b>Total manpower (number)</b>	<b>7,830,143</b>	<b>3,516,393</b>	<b>4,313,750</b>	

*Source: Ministry of Economy and Planning.*

women participation in economic activities and has created increased job opportunities commensurate with the nature of their work. On the other hand, the increasing shift to a knowledge-based economy, and the emergence of new economic activities, such as e-commerce, indicate that new and suitable employment prospects can be generated for women.

Third, current demographic trends, involving a shift from the high rate of population growth

in the past to a moderate growth rate in the future, will lead to a change in the age structure in favor of the population in working age. This underscores the need to adopt policies designed to influence education to bring it into harmony with future directions of the national economy, and to avert unemployment that has emerged as a result of mismatch between the output of education and training systems and the needs of the national economy for manpower.

The Seventh Development Plan 1420-1425H (2000-2004), as was the case with previous plans, gives special attention to the issues facing the Kingdom in the labor and employment field. Accordingly, it identifies the following basic challenges facing development of human resources tool for dealing with current and prospective labor market and employment problems, that need to be addressed during the next two decades:

- Providing adequate job opportunities for the new entrants to the labor market whose number is expected to grow at an average annual rate of 4.7 percent during the next two decades.
- Replacing non-Saudis by Saudi nationals in various jobs and activities in the private sector.
- Increasing job opportunities for women and increasing their share in the labor market in conformity with Islamic Shari'a.
- Reducing the technological gap between the Kingdom and developed countries, which entails devoting intensive efforts towards development of Saudi manpower and upgrading their skills.
- Reducing the gap between the outputs of higher, vocational and technical education and the requirements of the labor market.

- Improving Saudi labor productivity and keeping pace with technological developments.
- Improving the responsiveness of the outputs of the education and training systems to the requirements of the labor market.
- Improving labor market services and establishing integrated and advanced databases.

Promoting a positive attitude towards work in general, increasing females participation, improving quality of the national manpower, coupled with harmonization of education and training output with the requirements of the labor market, are key factors for increasing the participation of Saudi nationals in the labor force.

## CHAPTER SIX



### SOCIAL CARE, CULTURAL, JUDICIAL

### AND RELIGIOUS SERVICES

This chapter highlights the efforts made in providing social care, cultural, judicial, and religious services, and the role of non-governmental organizations operating in this field.

The chapter also reviews social care services provided by the Ministry of Labor and Social Affairs through its Deputy Ministry for Social Affairs (DMSA). Institutional and non-institutional care, as well as the Kingdom's system of social security and social insurance are also highlighted. This chapter further examines topics of youth welfare, information services and public awareness efforts. The Kingdom's judicial and religious services are also explored in this chapter.

The Kingdom of Saudi Arabia has experienced far-reaching socio-economic transformation over the past three decades. From the beginning of its developmental efforts, and in contrast to some other countries undergoing rapid change, the Kingdom has made it a priority that the benefits accrued from development are widely distributed

among all segments of society. This focus on sharing the benefits of economic growth has ensured broad support for the Government's development and modernization efforts and policies among the Saudi population.

However, certain categories within the society, such as the aged, the sick, orphans, widows and divorced women who, for different reasons, are unable to provide for themselves through work, have enjoyed special attention by the government. In the context of its efforts to ensure economic and social well being of all citizens, the Government of Saudi Arabia has established a broad system of social assistance and care, which is supervised by<sup>(12)</sup> specialized agencies and tailored to the particular circumstances of

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(12) Expenditure on social security as a percentage of government expenditure rose from 0.8 percent in 1404H (1985) to 1.8 percent in 1419H (1999). The share of direct social benefits paid by the government remained unchanged, at 0.4 percent of the total during the same period. In contrast, the share of direct economic subsidies in total government expenditure fell from 3.7 percent in 1404H (1985) to 0.9 percent in 1419H (1999).



people in need. This apart, the strong family relations prevailing in the Saudi society help provide social security along with the Government's efforts in this respect. Thanks to this dual system where the spirit of family solidarity and official efforts complement each other in providing social care, cases of social isolation are limited in the Kingdom compared to other countries.

In addition to the agencies providing assistance to needy individuals and families, other Government agencies provide youth welfare services including sports, cultural and information services. The religious agencies provide services intended to deepen the values of virtue in citizens and enable them to perform their religious rites smoothly.

## **Social Care**

The Kingdom's social policies aim at providing assistance to the needy citizens and supporting them to resume their effective participation in the work force, wherever possible. In the context of implementing this policy, the Deputy Ministry for Social Affairs (DMSA), at the Ministry of Labor and Social Affairs, undertakes rehabilitation and care for families in need of assistance due to adverse

physical or social circumstances. Thus, services are provided to paralyzed, handicapped, disabled individuals, to juvenile delinquents, orphans and elderly people unable to provide for themselves through regular work. In addition to formal institutional social care, the DMSA also provides subsidies and administrative and technical support for inmates of orphanages, paralyzed children and disabled persons. Support in the form of special activities is also provided for persons who leave social institutions and prisons to enable them to reintegrate into normal social life and prevent future anti-social behavior. The DMSA also encourages the private sector and supports its efforts in the provision of social care. Charitable societies, with technical, administrative and financial support from the Government, constitute an important partner in the social care system in the Kingdom.

### ***Institutional Care Services:***

Following is an outline of the main institutionalized social care services provided through government agencies:

- Special services for handicapped and paralyzed persons are provided through 29-rehabilitation centers spread all over

the Kingdom. The number of beneficiaries of these services reached 8062 in 1423H (2003).

- Care for orphaned children is provided by four residential nurseries, twelve social education homes for boys and girls, and two model social education institutions. The total number of beneficiaries of these orphanages was 1912 in 1423H (2003).
- Social care for elderly people who are unable to attend to their needs and whose families are unable to take care of them is provided by 10 elderly homes. The total number of beneficiaries at these homes was 664 in 1423H (2003).
- Rehabilitation training for two categories of juveniles. The first category comprises juveniles who commit legally punishable acts. These are usually lodged in social observation homes and female social care institutions. The second category comprises juveniles who are susceptible to delinquency. They are usually lodged in social guidance centers.
- By 1423H (2003), there were five social guidance centers with some 283 beneficiaries, twelve social observation centers with about 12397 beneficiaries and three female care institutions with about

1004 beneficiaries.

### *Non-Institutional Care Services:*

In addition to institutional social care, DMSA provides non-institutional social care services to people within their own families, or within foster families, for individuals in need of social care under the supervision of professional staff. These services comprise:

- The Foster Family Program, which provides care for children with special needs through reliance on volunteer families, who are selected according to specific criteria and paid monthly stipends for this purpose. About 4110 children received care through this program in 1423H (2003).
- The Program of Support to Paralyzed Children Within Their Own Families, which provides financial assistance to participating families. Care was provided under this program to about 1863 children in 1423H (2003).
- The Program of Support to Handicapped Within Their Own Families, which provides assistance to families who prefer to take care of handicapped members at home instead of rehabilitation centers.

The program provides financial support to participating families. The number of beneficiaries under this program was about 84,341 in 1423H (2003).

- The Marriage Assistance Program is designed to facilitate marriage of persons who are residing in social education institutions homes or are cared for in foster families and who might otherwise face problems getting married. Under this program, each boy or girl receives financial assistance upon marriage.
- Support for rehabilitation projects benefiting handicapped individuals.

#### ***Care Services Provided Through Charitable Societies:***

Recognizing their vital role in providing social care in local communities, the Government also provides administrative, technical and financial assistance to a wide array of charitable societies and institutions. In 1423H (2003), charitable societies and institutions received Government assistance to continue their activities which covered 115 kindergartens, 20 centers for day care, 14 boarding nurseries, 14 summer clubs for children, 31 centers for girls and women's education, 16 female tailoring shops, 25

language-teaching centers, 26 computer training centers and 8 shelters providing care to elderly and handicapped persons.

#### ***Local Community Development Programs and Services:***

Support through the social development centers, committees and the cooperative societies in the rural areas, and social work centers in urban areas, represent a second Government approach to raising the level of social development and addressing cultural, economic and social needs at the local community level. Together, these centers and committees implemented 379 different projects benefiting 121,690 persons in 1423H (2003).

DMSA encouragement for the establishment of cooperative societies is reflected in the steady increase in the number of such societies representing the collective interests of farmers, fishermen, consumers, etc. These cooperative societies had some 50,393 shareholders and assets valued at SR 825.7 million in 1420H (2000).

The DMSA conducts field studies and research aimed at raising the efficiency of the

programs and services provided, and identifying the needs and problems of local communities.

## **Social Security**

The Deputy Ministry for Social Security (DMSS) at the Ministry of Labor and Social Affairs oversees programs intended to help alleviate economic hardships, by providing needy people with their basic needs through annual pensions. It also renders assistance to citizens in temporary social distress.

Specifically, the following services are provided by Deputy Ministry for Social Security:

- \* Regular pension payments to sustain the livelihood of old people, orphans, widows, divorced or unmarried women without a steady income, or to assist those suffering from total disability.
- \* Temporary assistance covering cases of partial disability, families of prisoners, emergency assistance, and students in families covered by social security, etc.

Pension entitlements have been raised several times over the past decades to ensure the material well-being of the beneficiaries and

offset cost of living increases. During 1423H (2003), the total amount of assistance distributed reached SR 2,986.7 million, comprising SR 2,484.6 million in regular assistance.

## **Social Insurance**

The General Organization for Social Insurance (GOSI) provides pensions and protection from occupational hazards to private sector employees and workers of the government sector. Established as a government agency headed by a Board of Directors presided over by the Minister of Labor and Social Affairs, GOSI enjoys financial autonomy. GOSI invests its surplus funds in economically viable projects in various areas.

Due to the special demographic structure of Saudi Arabia, with a large proportion of the population being very young, contributions to GOSI by insured workers exceed payments to retirees each year. As a result, GOSI has been running significant net operational surpluses for many years. But as the Kingdom's high rate of population growth is expected to slow down in the coming decades and the number of retirees to increase rapidly, GOSI's

operational sur-plusses may fall.

Table (6.1) gives key indicators of the development of GOSI's insurance activities during 1414-1422H (1994-2002).

## Youth Welfare

The importance accorded by the Government to youth welfare is reflected in the establishment of the General Presidency for Youth Welfare, in 1394H (1974), with the objective to promote sports, cultural and social activities. The Presidency provides organizational, technical and financial assistance to sports, cultural and social organizations and societies. It also licenses

and subsidizes sports and literary clubs and is responsible for the construction of sports facilities in all parts of the Kingdom.

The General Presidency for Youth Welfare has established 18 sports, cultural and social centers, 6 stadiums and numerous other sports and cultural facilities in different parts of the Kingdom. In addition, the Presidency has established 153 sports clubs, 12 literary clubs and a Culture and Arts Society. The diverse scope of activities of the Presidency is illustrated by its organization of more than 5,822 domestic and international sports competitions, 124 "cultural week" events and numerous competitions in the fields of culture,

Year	Number of Establishments	Number of Insured Employees	Compensations Paid (SR million)	
			Pensions	Occupational hazards
1414H (1994)	17,848	1,244,040	705.8	129.0
1415H (1995)	18,408	1,237,244	735.5	144.5
1416H (1996)	19,153	1,252,508	806.3	144.5
1417H (1997)	19,808	1,280,446	874.2	152.9
1418H (1998)	24,026	1,473,537	955.8	158.5
1419H (1999)	26,658	1,624,588	1045.2	315.4
1420H (2000)	29,569	1,727,910	1221.0	227.7
1421H (2001)	32,186	1,810,267	1340.3	216.2
1422H (2002)	35,934	1,986,589	1631.0	186.5

*Source: Central Department of Statistics - Ministry of Economy and Planning; and General Organization for Social Insurance.*

poetry and novels. Broadly speaking Saudi Arabia has risen to international levels in the field of some sports. For example, the Kingdom has won the Asian football championship in 1404H, 1408H and 1416H (1984, 1988 and 1996), scored second in 1412H (1992) and qualified three times in succession for World Cup finals. The Kingdom also enjoys an international reputation in the domain of equestrian sports where it has occupied top ranks at Asian, Arab and international competitions.

### **Information(\*)**

A key responsibility of the Ministry of Information is to provide support for preparing, production and transmission of radio and TV programs. The Ministry also promotes press activities as well as authorship and publishing along with providing support to authors.

The Ministry plays an important role in enriching the general knowledge of the Saudi society and in acquainting the population with

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(\*) Data on Youth Welfare and Information have been compiled prior to the Royal Decree No. A/2, on 28/2/1424H, which changed and/or revised the names of some ministries.

cultural, scientific and technological aspects of global developments. At the same time, it provides citizens with awareness, guidance, cultural and entertainment programs. Moreover, it acquaints the world with the Kingdom's achievements in the various domains, as well as the Kingdom's role in the Arab and Islamic world.

Enhanced access to widespread information is illustrated by the fact that the Kingdom's population today has access to television services through three channels transmitting programs in Arabic (Channel 1), the sports channel, English and a daily French language news bulletin broadcast on Channel 2. These services are made possible through 127 television centers. The Saudi radio and TV direct transmission on satellites now covers all continents of the world. Furthermore, a significant proportion of the population also enjoys access to a multitude of television news and entertainment programs through satellite connections. In addition, 25 MW and SW stations, covering 100 percent of the population as well as international coverage. There are also 32 FM stations covering the main regions in the Kingdom.

The Saudi Press Agency (SPA) has 14 offices

spread in the various regions of the Kingdom, as well as 7 offices abroad, and correspondents in many international capitals. SPA also cooperates with other international news agencies.

The number of Internet users in the Kingdom has been growing rapidly since the introduction of the service on a wide scale about two years ago. This momentum is expected to be maintained due to accelerated availability of the service and decreasing costs to users.

### Judicial Services

The Ministry of Justice is the authority responsible for providing judicial services in the Kingdom. It is also mandated to issue legal certifications governing various transactions such as contracts, registrations, mortgages, etc. It is also responsible for the administrative and financial surveillance of the Supreme Justice Council, Shari'a Courts, public notaries and cassation boards.

The Ministry of Justice has endeavored to ensure the best means for facilitating litigation procedures and obtaining Judicial services related to the issuance of legal deeds concerning official and personal transactions

such as authentication of contracts and mortgages, registration of sales and issuance of security certificates, etc.

Since the establishment of the Ministry of Justice in 1390H (1970) and up to 1423H (2003), remarkable progress has been made in the field of judicial facilities such as courts, public notaries, the administrative units of the Ministry. including opening of 11 branches and 5 follow-up units (Table 6.2), among others.

Table (6.3) below depicts the progress of judicial services in the Kingdom.

### Religious Services

<b>Judicial Facilities Ministry of Justice</b>		<b>Table 6.2</b>
<b>Facility</b>	<b>Number</b>	
General Courts	287	
Mobile Courts	8	
Cassation Courts	3	
Juvenile Courts	1	
Conjugal Courts	4	
Traffic Courts	2	
Public Notaries	124	
Bait Al Mal	2	

*Source: Ministry of Justice.*

<b>Development of Judicial services in the Kingdom</b>		<b>Table 6.3</b>	
	<b>1414H (1994)</b>	<b>1423H (2003)</b>	<b>Change (%)</b>
Number of Cases	413,376	575,267	28.3
Number of deeds	905,911	1,412,722	20
Number of cassation cases	35,470	57,958	43.4

*Source: Ministry of Justice.*

### **Ministry of Hajj:**

Intensive efforts are made by the Ministry of Hajj in order to provide services to the growing number of pilgrims, whose numbers totaled 1,924,242 in 1423H (2003), including 1,431,012 pilgrims from abroad. Through these efforts, The Ministry of Hajj seeks to improve and upgrade the services provided to pilgrims, in coordination with other government agencies.

Table (6.4) below, depicts the type of services and facilities provided or supervised by the Ministry of Hajj.

### **Ministry of Islamic Affairs, Endowments,**

#### **Call and Guidance:**

The Ministry of Islamic Affairs, Endowments, Call and Guidance assumes the responsibility

of taking care of philanthropic endowments as well as investment of the proceeds of these endowments. The Ministry also undertakes supervision, maintenance and cleaning of mosques and praying areas, totaling more than 45000 mosques and praying areas by 1423H (2003). It also supervises the King Fahd Complex for Printing the Holy Quran, which has produced more than 167 million copies of the Holy Quran since its opening in 1405H (1985). Furthermore, the Ministry organizes national and international competitions on memorization, recitation and proper reading of the Holy Quran. It also supervises and provides financial support to the charitable societies of Quran memorization.

Furthermore, the Ministry has the responsibility for cooperation and coordination with Islamic organizations in Muslims countries in matters relating to Islamic faith as well as in social and cultural domains. The Ministry also undertakes the issuance, publication and distribution of Islamic books.



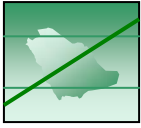
**Type of Hajj Services and Providing Agency,  
1423 H (2003)**

**Table 6.4**

<b>Agency/Service</b>	<b>Number</b>
Tawafa (Touring) institutions, (external Pilgrims) Makkah	6
Pilgrims Guidance institution, (external Pilgrims) Madinah	1
Unified Agents Office, Jeddah	1
Zamazma Office, Makkah	1
Twafaa Staff in charge of external pilgrims	9796
Agents	762
Guides	2813
Pilgrims guide	1350
Zamazma staff	843
Authorized institutions in charge of internal pilgrims	671
Operational internal pilgrims institutions	671
Supervisory committees on external pilgrims institutions	10
Field supervisory teams on external pilgrims institutions	109
Supervisory committees on internal pilgrims institutions	5
Field supervisory teams on internal pilgrims institutions	17
Services offices in Twafa institutions	340
Services offices in pilgrims guidance institutions	17
Pilgrims receiving centers at points of entry	16
Guidance and direction centers	4
Centers assigned for control of pilgrims movement in batches	3
Centers receiving complaints of pilgrims	37
Housing units under supervision of the Ministry	6195

*Source: Ministry of Hajj.*





# URBAN AND REGIONAL DEVELOPMENT AND HOUSING

In the earlier chapters of this report, human development was dealt with from the perspectives of citizens' health, education, income, social and cultural life. This chapter will address the impact of urban development in the Kingdom and the services provided by the municipal sector on human development. The development of the Kingdom's regions will be explored, along with the issue of availability of housing to support human development.

## Urban Growth and Quality of Life

Cities have been the crucial venues for the economic, technological, social and cultural advancement. It is in the cities, with their economies of scale and other specific favorable factors and conducive conditions, where people have been enjoying long, healthy and creative lives well above what is required as basic needs of life. Cities offer the greatest possible diversity in higher education, sophisticated health care and ample choices of job opportunities. They also provide a

conducive environment for progress and innovation, an abundance of information, a great variety of trade and service activities, transport modes and means of communication, as well as endless options for social contact, leisure and recreation. As a result, urban centers not only directly promote tangible human welfare, but also act as catalysts for growth and achievement in other sectors.

Cities experience a higher order of socio-economic development which small rural communities could never attain. This is mainly attributed to three closely related factors: high degree of division of labor, large number of consumers of goods and specialized services, and optimum population density in which these elements interact.

Much has been written about the appropriate form, and especially the optimum size, of cities. The most important conclusion to be derived from these theories is that the optimum size of a city depends on a host of

domestic factors. These factors include economic structure, human resources, quality of transport infrastructure, geography, and the urban fabric. Consequently, the ease of communication (i.e., easy movement of people, goods and information) within urban limits is a good indication of an urban environment favorable to overall human development.

In the context of the Kingdom's keenness for development of cities and their functions, committees and higher commissions have been established and entrusted with the development of a number of major cities and follow-up of their urban plans. Moreover, work is under way on evaluation of urban planning in a continuous manner along with preparation of structural strategies and plans for new cities.

In the urban areas of the Kingdom, a good quality of communication infrastructure exists, as the travel time to work in urban areas is significantly less than that in many comparable world urban centers. Saudi cities are generally well organized, thanks to the sound spatial planning approach that has been followed in the process of construction and

development during the various stages of urban development. Urban development plans have been adopted for all major cities at an early stage, resulting in orderly urban development and expansion of basic services in line with the expansion of cities and their population. Apart from the cities, small villages were grouped into clusters, where each cluster shares a number of basic services. This has been warranted by low population density in some of these areas, and the requirement to achieve optimal utilization of economic resources.

In the Kingdom, more than 75 percent of the total population now lives in towns and cities, with the population in cities of more than 750 thousand inhabitants constituting about 44.8 percent of the total population, which is a marked change from the situation eighteen years back (Table 7.1).

### **The Role of the Municipal Sector<sup>(\*)</sup>**

The municipal sector in the Kingdom is responsible for planning, implementation,

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(\*) Information before issuance of Royal Decree #A/2 of 28.2.1424 regarding restructuring some ministries and government agencies.

**Urban Development Indicators****Table 7.1**

	<b>1405 H (1985)</b>	<b>1423 H (2003)</b>	<b>Index (1985 =100)</b>
Total Population (000')	12795	22534	176
Urban population as a percentage of total population	52.9	75.2	142
Population in cities of more than 750,000 persons as a percentage of total population	19.1	44.8	235
Population in cities of more than 750,000 persons as a percentage of urban population	36.0	44.4	123
Riyadh city population (000')	1266	4146	327
Jeddah city population (000')	1172	2590	221
Great Dammam (Khobar – Dammam – Dhahran - Thoqba) population (000')	374	1306	349

*Source: Central Department of Statistics – Ministry of Economy and Planning.*

operation and maintenance of municipal infrastructure and utility service. These comprise water and wastewater networks, urban streets, in addition to facilities such as markets, slaughterhouses, parks, car parking facilities, and public squares. The municipal sector also assumes urban planning responsibilities for all cities, villages and hamlets in the Kingdom. Furthermore, municipalities are concerned with maintenance of public cleanliness and hygiene and environmental health, thus substantially contributing to enhancing the quality of life especially in densely populated urban areas.

Notwithstanding the rapid progress in provision of municipal services, the municipal sector still faces numerous challenges including the steady increase in demand for municipal infrastructure and utility services due to population growth and its concentration in urban centers; the need to extend services to all villages and hamlets in the Kingdom; and the need for integrated municipal information and statistical data base. A further challenge relates to the need to get the private sector involved in implementing municipal infrastructure utilities and services, as well as operation and maintenance of these facilities.

## **Rural Living Conditions**

Basic living conditions have been enhanced greatly in the various hamlets and villages of the Kingdom, due to accessibility to clean drinking water, electricity, and asphalted roads. The creation of over 65 village clusters spread throughout the Kingdom, and the effective role these clusters play in providing municipal services, has greatly contributed to continued improvement of living conditions in the Kingdom's hamlets and villages. In fact, village clusters constitute an effective structure through which basic services are provided to a large number of rural population. On the other hand, village clusters serve as centers for attracting economic activities, and as such assume an effective role in reducing disparity between urban and rural areas, helping in turn to limit migration to the metropolis.

In the past, nomads made up a substantial part of the population - as many as 24.7 percent in 1394H (1974). With the spread, in recent years, of health and education services and the creation of village clusters, nomads were granted housing facilities and residential lots. This has helped accommodate most nomads in villages and hamlets.

## **Regional Development Patterns**

The modern settlement structure in the Kingdom comprises more than 100 towns and cities. At present, there are 5 major cities of more than 750,000 inhabitants with highly specialized functions, while another 108 medium and small cities and towns mainly perform the normal functions of development centers at the administrative level of the Kingdom's regions.

The priority focus has been placed on provision of infrastructure and basic services for these large urban centers and surrounding areas in the early stages of social and economic development process in the Kingdom. With the significant achievements attained in this field, the focus has now shifted to provision of adequate levels of infrastructure and services to small towns and village clusters in various parts of the Kingdom. This is expected to reduce migration to major cities. The Kingdom managed to expand the scope of urban society in most parts of the country within a short span of time. Currently, about 80 percent of the Kingdom's population has access to modern infrastructure, utilities and services, an achievement which is considered

remarkable in the light of the Kingdom's vast area and harsh topography.

The country's as well as development plans' strategic direction continues to focus on realizing further balance in the distribution of services and development projects among the various regions of the Kingdom. This is being done through the national urban strategy that aims at the development of medium and small cities throughout the Kingdom.

In the context of these efforts, the Provincial Act divided the Kingdom into 13 administrative regions, which comprise a total of 13 cities, 105 governorates and 1298 centers. Regional councils have also been established with members from the various government services sectors, in addition to the private sector. This move came about as an important step to enhance development efficiency at the regional level. It will certainly contribute to the development of a comprehensive and accurate appreciation of the resources and potentials of individual regions, and will also help in planning the utilization of these resources in viable development projects. The formation of Regional Councils has made it possible to

coordinate the distribution of various projects, utilities, and services among the various regions, in such a way that achieves balanced growth. This will ensure continuation of the high quality of life experienced in major cities and smaller towns, as well as in villages and hamlets in the Kingdom.

### **Housing to Support Human Development**

Decent housing is one of the most essential prerequisites for human self-fulfillment. Besides shelter for the family, an appropriate dwelling unit provides enough space for family interaction.

Modern and large detached houses and villas are preferred by the majority of Saudi families although some traditional houses still exist, especially in some rural areas (Table 7.2). Moreover, fully integrated residential compounds of various sizes are a familiar sight in Saudi major cities. These compounds are provided with various facilities and services.

Present demographic, economic and social trends point towards a potentially rapid evolution in the life styles and preferences of

**Occupied Housing by Type of Residence, 1423H (2003)** **Table 7.2**

	<b>Number (000')</b>	<b>Percentage Share</b>
Traditional houses	979	27.4
Villas	1157	32.3
Apartments	1170	32.7
Other Types	271	7.6
<b>Total</b>	<b>3577</b>	<b>100.0</b>

*Source: Central Department of Statistics – Ministry of Economy and Planning.*

the Kingdom's population. With younger generations being dominant in the population and rising costs of housing units, utilities and other services, the preference for smaller residential units, rather than large apartments and villas, is consequently increasing.

Over the past decades, both the Saudi Government and the private sector have made great strides in assisting citizens to obtain adequate housing. The Government granted housing plots in various cities, villages and hamlets throughout the country. It also provided loans at very favorable terms for construction of private residential units as well as for the implementation of long-term investment projects. Including construction of housing units as well as residential and commercial compounds. The total number of housing units constructed with government

assistance throughout the Kingdom since 1394H (1974) and up to 1423H (2003) is estimated at 851,000 units. The Ministry of Public Works and Housing has constructed 24600 residential units within integrated residential compounds. Some other government agencies have provided staff housing, within fully integrated complexes, totaling 233,400 units. The private sector has also constructed a total of 593,000 units, including apartments, villas, and residential compounds with financial assistance from the Real Estate Development Fund (REDF). Furthermore, a total of 2.7 million, housing units, have been financed and constructed by the private sector.

Consequently, ownership rates by Saudi nationals are quite high in the Kingdom, amounting to 43.5 percent of total housing stock (Table 7.3). This rate is expected to increase in future.

Notwithstanding the achievements realized in the field of housing, a number of key issues remain to be addressed including: helping middle and low-income citizens to secure their own housing; ensuring adequate resources to meet the growing demand for



<b>Occupied Housing by Type of Tenure, 1423H (2003)</b>		<b>Table 7.3</b>
	<b>Number (000')</b>	<b>Percentage Share</b>
Owned Housing	1554	43.5
Rented Housing	1686	47.1
Other Housing	337	9.4
<b>Total</b>	<b>3577</b>	<b>100.0</b>

*Source : Central Department of Statistics –  
Ministry of Economy and Planning.*

loans from the REDF; and, overcoming the constraint represented by the steady rise in construction costs. There is also a pressing need for an accurate assessment of present and future housing requirements on which to base policies and estimate financial resources necessary to meet such requirements.



## CHAPTER EIGHT



### WOMEN AND HUMAN DEVELOPMENT

Women play a pivotal role in ensuring sustainable human development. Thus, enhancing the capabilities of Saudi women to take part in development and enabling them to put these capabilities into productive use in the service of society is of paramount importance.

The benefits accruing from development for women are particularly salient in their life expectancy and education. Female life expectancy at birth averaged 72.7 years in 1420H (2000) compared to 70.3 years for the male population.

In education, female enrolment ratios have risen to unprecedented levels while illiteracy rates have dropped dramatically. In this respect, the Kingdom's Human Development Index<sup>(13)</sup> reflects considerable achievements during the period 1414-1419 (1994-1999) as the gender gap in enrolment ratios at the secondary and tertiary has been closed, while

the gap in elementary enrolment is following suit. Female participation in the labor force increased to 78.5 percent for holders of Diplomas and 75.6 percent for holders of Bachelor degrees. This is a positive indicator of women's participation in economic activities, and the increasing job opportunities being made available to them. Furthermore, the government continues to make efforts to enhance participation rate by creating more job opportunities for women in conformity with their requirements and the Islamic teachings and values.

This chapter discusses the aspects related to women within the context of human development in the Kingdom of Saudi Arabia and the achievements that have been accomplished in the areas of health and education. This chapter discusses women's increasing participation in economic activity, and the factors that hinder the attainment of this objective. Finally, it discusses issues and policies related to women's employment.

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(13) When computing GDI, based on data published by the UN organizations about development in the Kingdom, the index shot up from 0.581 in 1414 (1994) to 0.724 in 1418 (1998).

## Saudi Women & Education

The Kingdom has given priority to the education of women to enable them become productive members of society. This has entailed providing them with knowledge and skills necessary to enhance their participation in development, along with developing their roles as mothers and wives, and as productive members of the society.

Contrary to the experience of several other countries, the Kingdom has managed to bridge the gender gap in education in a relatively short period. This is attributed to the expansion of education across the board, as well as the considerable attention given to girls' education.

Despite the fact that girls' education was introduced relatively later than that of boys, it has experienced rapid expansion both horizontally and vertically leading to narrowing of gender gap in most levels of education (Table 8.1). The gender ratio of total enrolment has decreased from 2.16 boys for each girl in 1395H (1975) to about 1.06 boys for each girl in 1422H (2002). The average annual rate of growth of girls' total enrolment across all educational levels during 1395-1422H (1975-2002) is estimated at 8.0 percent compared to 4.2 percent for boys.

The number of girls enrolled in the elementary, secondary and tertiary levels has increased faster than those of the boys (Table 8.1). This

**Female Enrolment by Educational Level 1395 – 1422H ( 1975 – 2002)**

**Table 8.1**

	Primary level		Secondary level		Tertiary level		Other		All levels	
	Number (000)	Gender gap	Number (000)	Gender gap	Number (000)	Gender gap	Number (000)	Gender gap	Number (000)	Gender gap
1395H (1975)	261.1	1.95	10.0	3.20	8.0	4.43	33.0	3.03	312.0	2.16
1400H (1980)	405.0	1.73	29.0	2.21	25.0	2.08	52.0	2.56	512.0	1.86
1405H (1985)	663.0	1.44	65.0	1.43	43.0	1.84	105.0	1.42	876.0	1.45
1410H (1990)	1011.0	1.25	110.0	1.29	68.0	1.46	121.0	0.98	1310.0	1.24
1415H (1995)	1405.0	1.11	202.0	1.21	142.0	0.94	163.0	0.49	1912.0	1.06
1420H (2000)	1587.0	1.11	366.0	1.06	198.0	0.95	209.0	0.45	2360.0	1.05
1422H (2002)	1622.0	1.85	409.0	1.06	189.0	1.14	234.0	0.66	2454.0	1.06
<b>Average growth rate</b>	<b>7.0</b>		<b>14.7</b>		<b>13.0</b>		<b>7.5</b>		<b>8.0</b>	

*Source: Ministry of Economy and Planning.*

reflects a significant narrowing of gender gap ratios at all levels.

As to the historical development of enrolment<sup>(14)</sup>, combined enrolment ratio for females has increased from 23 percent in 1395H (1975) to 84.5 percent in 1420H (2000), Table (8.2). This achievement has been the result of growth of enrolment ratios at all educational stages, particularly secondary and tertiary levels. Female enrolment ratio at the secondary level has increased from 4.9 percent in 1395H (1975) to 88.2 percent in 1420H (2000). In the tertiary education level, the ratio increased from 2.5 percent to 58 percent over that same period.

One of the consequences of this substantial increase in female enrolment at the various educational levels, has been the steady increase in the number of educated Saudi females.

Table 5.5 in Chapter Five of this report shows

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(14) Female enrollment rate is measured by the ratio of total female students, at the three educational levels to the total female population at the relevant age group (6-22 years).

that the cumulative stock of educated Saudi females is estimated today [1422H (2002)] at 59.3 percent of all Saudi females at 15 years of age and above compared to 82.9 percent for males.

In addition to formal education, adult education and illiteracy eradication programs have also made substantial contribution to the education of women in the Kingdom, as indicated by the fact that those who can read and write represent about 20 percent of women who do not have formal education. Considering the accelerated female enrolment path across all educational levels, and the natural decrease of illiterate females in the upper-age bracket, the educational profile of the female population is steadily improving in favor of educated females.

## **Saudi Women & Employment**

In view of women's special position and their vital roles in the society raising women's participation in the Kingdom's socio-economic development has been a key objective of development plans. Interest in the employment of women has increased with the progress of development in the Kingdom. Development has created new social and

**Gross Female Enrolment Ratios by Educational Level  
1395 – 1420H ( 1975 – 2000)**

**Table 8.2**

	Primary level		Secondary level		Tertiary level		All levels	
	Ratio (%)	Gender gap	Ratio (%)	Gender gap	Ratio (%)	Gender gap	Ratio (%)	Gender gap
1395H (1975)	36.0	1.77	4.9	3.07	2.5	4.28	23.0	1.92
1400H (1980)	42.8	1.69	11.7	2.14	7.0	2.00	29.6	1.73
1405H (1985)	56.0	1.40	21.8	1.40	10.1	1.79	40.4	1.42
1410H (1990)	70.1	1.21	29.2	1.26	13.0	1.43	50.8	1.23
1415H (1995)	82.5	1.08	43.4	1.18	21.5	0.92	61.8	1.08
1420H (2000)	94.5	1.03	88.2	1.03	58.0	0.90	84.5	1.11

*Source: Ministry of Economy and Planning.*

economic conditions, which call for higher participation by women in the labor market and in appropriate jobs sanctioned by Islamic teachings. In particular, this question has been getting wider interest lately due to the growing number of females graduating from different educational and training levels.

Saudi women have been, for a long time, active participants in the labor force of the traditional economy. They used to be partners in the various chores performed by the family. Women performed various jobs and productive tasks such as farming, herding and engaged in crafts in traditional industries. Women have performed these tasks along with their overall role in the family. This practice was socially acceptable and consistent with the social

values and norms.

The Saudi economy has transformed over the past three decades from a traditional economy with simple work relationships, to a modern economy featuring advanced production technologies.

Patterns of lifestyles, production and work have changed, and new economic relationships and structures have emerged that depend on modern institutional and organizational frameworks not previously experienced. These changes have prompted development of new policies which seek to establish the most appropriate ways of maximizing women's participation in the economic and social development of the country without

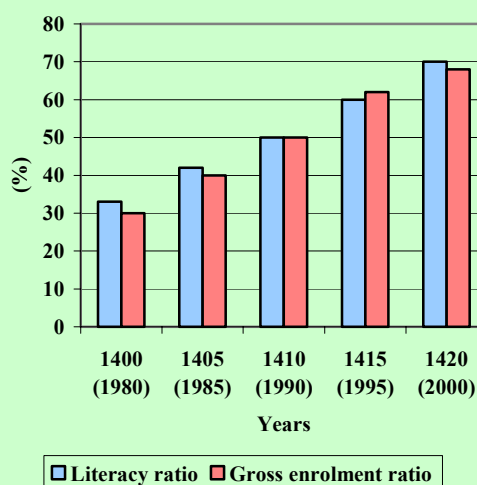
compromising social and religious values.

Expansion of female education has prompted more women to enter the labor market, where employment opportunities are available in the fields of female education, health and social services, especially in the government sector.

Availability of job opportunities in these fields has had a considerable impact on the present educational profile of the female population. This is especially evident in the high enrolment ratio of females in the teacher's training and higher education institutions, particularly those studying humanities and social sciences. Employment opportunities in these disciplines have been approaching saturation levels. Against the background of these developments, intensive efforts had to be made to increase job opportunities and to further develop education and training policies. Efforts were also made to ensure better conformity between these two aspects with the aim to expand women's participation in economic activities and to meet development needs by employing the national labor force in various areas. Furthermore, the huge investments made by the government and society in girls' education, along with the

**Progress of Female Education Attainment**

**Figure 8.1**



*Source: Ministry of Economy and Planning.*

efforts made to raise women's literacy rate and upgrade their capabilities require that women's potential and knowledge be utilized to the optimal level. The expansion of women's participation in the socio-economic activities would also have positive impact on decreasing the reliance on expatriate workforce.

It is noteworthy to point out that the remarkable achievements of human development in women's education go beyond the increased literacy of women. Saudi women have made essential contributions in the economic, social, cultural and scientific fields. They have become active partners in society.

## **Women's Economic Activities**

### ***Participation and Major Constraints:***

Analysis of population and participation in the workforce by age groups, as provided in Chapter 5 and as illustrated in table 5.4 and 5.5, indicates that Saudi women participation in the workforce is highest in the age group 25-34 (about 21.0 percent of total female-population in the same age group), where an individual is normally at his/her prime working age. In comparison, participation to educational level is also highest for those who have completed their education, especially holders of teacher's training diplomas (about 78.5 percent of total female graduates in this field). Participation rates are relatively lower at the lower age groups, dominated by students, and higher age groups.

It is noteworthy in this context that the rate of women's economic participation does not reflect the actual employment status of women as it does not include women's traditional work. Women participation in such activities as herding, farming or small family-operated production and service projects does not appear in the official statistics. Thus, women's economic participation calculated on the basis of official statistics is underestimated.

The percentage distribution of Saudi female force by activity shows a concentration in education and health sectors, particularly in the government sector. According to 1422H (2002) data, Saudi women accounted for about 82.7 percent of the total female workforce in the education sector, and 7.5 percent in the health and social sector. The concentration of the Saudi female labor force in the government sector is due to the relatively considerable role of the sector in providing girls education and health services. In fact, these two areas employ some 92 percent of the total Saudi female workforce in the government sector, with the rest employed by universities and other Government agencies. In addition to education and health services, other sources for employment of women in the Private Sector include all-women banking, small trading businesses and handicrafts.

### ***Major Constraints to Women's Employment:***

The successive national development plans have shown special concern for women's issues. Statistical data show significant improvements in the health status, educational attainment and economic, social and cultural participation of women. Further efforts are



being made to achieve greater participation in other developmental fields. The focal concern of these efforts is to identify, and subsequently remove, the constraining factors and hurdles, such as:

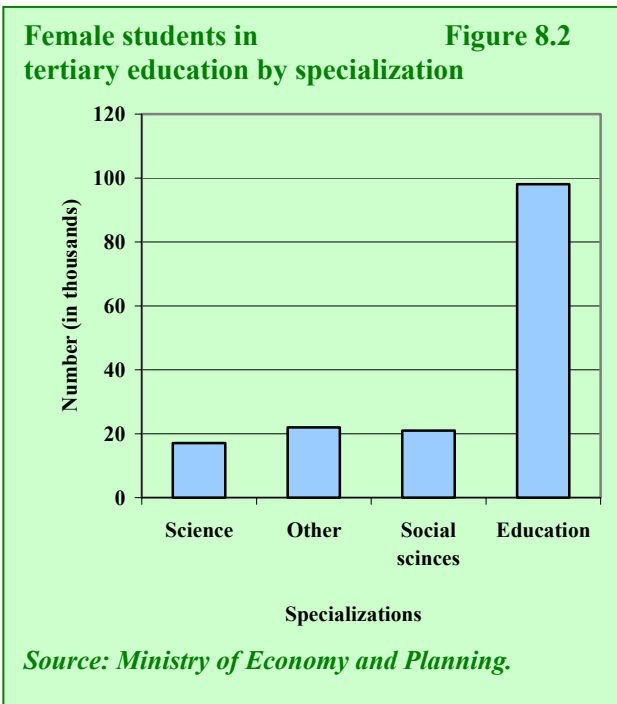
- Limited opportunities of employment areas available for women. Currently women employment is mostly concentrated in girls' education and health services. This fact limits the rate of participation of women in the workforce, particularly in view of the fact that both sources of employment are approaching saturation levels, especially girls' education. Thus, assessments are being undertaken to find employment opportunities for women from several alternatives that have been proposed.
- Mismatch between educational qualifications and labor market requirements. This is clearly evident in the high number of job seekers among females graduating with majors in humanities and social sciences. On the other hand, job opportunities are available in several other fields in which non-Saudi females are currently employed.
- Organizational constraints, such as commuting between home and

workplace, is another problem. Job seekers prefer workplaces close to their homes, and refuse to work in remote areas.

- Working conditions such as wages and working hours differ significantly in the government and private sectors. These differences are the main reasons for Saudi women's reluctance to work in the private sector. Lack of childcare and maternity-related facilities, constitute another hurdle in this respect.

### Employment Issues and Policies

Increasing women's employment requires implementing policies geared towards



improving external efficiency of education and expanding technical education and vocational training appropriate for women, especially those whose qualifications are no longer in demand by the labor market. The need to increase women's contribution to the labor market and their participation rate in the economic activity has significantly figured in the Kingdom's development plans. In order to ensure continued growth of this rate over the coming years, efforts should continue to be made to enforce and strengthen policies that are aimed at achieving the following objectives:

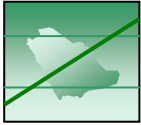
- Expansion of work opportunities for women by opening new fields of employment in conformity with Islamic Sharia. Intensive efforts were made in this respect. However, further efforts are still needed to remove the impediments in this respect in order for these efforts to bear fruits.
- Provide the possibility of part-time employment for women. This kind of employment suits the special circumstances of many women and could increase the level of women's participation in the labor force as proven by relevant experiences around the world.
- Rewarding job opportunities can be provided to women by facilitating and encouraging them to do home – based traditional and modern activities. Advances in communication technologies, and the huge growth in transactions through the internet provides new areas and approaches for work and employment. This would make it possible to overcome such problems as lack of childcare facilities and other considerations. However, the utilization of this technology calls for acquisition of relevant skills through education and training, as well as wider dissemination of telecommunication and information services, including the internet, with acceptable speed and reliability.
- Continuation of the Saudization process: Statistical data show that tremendous progress has been accomplished in replacing expatriate women by qualified Saudi women in girls' education, where the Saudization drive is almost complete. However, the Saudization process in the health sector is still slow. Although, there are indications that Saudi women have begun to occupy jobs that had been previously filled by male or female

expatriates. In addition, the health sector offers great potentials for enhancing women's participation.

- Raising women's participation in industrial activities, through adoption of policies aimed at promoting and facilitating women's investment in small-scale industrial projects, as has been recommended by the Kingdom's development plans.
- Laws, regulations and by-laws need to be revised in order to minimize occupational hazards that may face women employed by the private sector. Appropriate working conditions should be created that would also mandate maternity leaves.
- Effective coordination is needed among the agencies responsible for resolving women's employment issues, in order to eventually come up with effective solutions to these issues.
- Developing comprehensive job classifications, counseling services and labor market information, are all important factors for improving employment and for ensuring further consistency between supply and demand of various skills.



## CHAPTER NINE



# PROTECTION OF THE ENVIRONMENT AND HUMAN DEVELOPMENT

The relationship between environment and human development is described as one of interaction and interdependence. Human development should be realized to its fullest potential while simultaneously protecting the quality of the environment and conserving its natural resources. Moreover, as progress is made in the realm of human development, the process of environmental protection and conservation becomes an integral part of the economic, social and cultural fabric of society, due to educational development and rising public awareness. The conservation and proper management of the environment, in turn, are prerequisites for sustainable development, which is in itself a necessary condition for human development.

Conservation of the natural resources of the country and ensuring its sustainability were a major concern for the people of Saudi Arabia long before the onset of modern social and economic development planning in the early nineteen seventies. Faced with a dry climate,

mostly semi-arid conditions and a limited arable land area, the early inhabitants, whose livelihood depended mainly on raising limited crops and livestock, had to ensure that the utilization of their grazing land did not exceed the rate of natural regeneration. Similarly, inhabitants of the long coastal plains of the Arabian Peninsula had to meet similar challenges so as not to deplete their fish stocks.

The economic and social development produced new environmental challenges and exacerbated the existing ones. This makes it extremely important to put into place a system to meet these challenges through appropriate policies and programs.

This chapter reviews the Kingdom's environmental protection and conservation activities. It addresses the situation of land, water and energy resources, and the conservation efforts devoted to achieve sustainable development. The chapter further

## Sustainable Development

## Box 9.1

Sustainable development is the development that meets the needs of the present without affecting the ability of future generations to meet their own needs, a process of change in which exploitation of resources, the direction of investment,

the orientation of technology development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and their aspirations.

*Source: The Report of the World Commission on Environment and Development (1987).*

examines the Kingdom's current environmental situation as regards air, soil and water pollution, and sheds light on the status of bio-diversity. The Kingdom's environmental policies and the cooperation it pursues in this arena at the international level are explored. The chapter concludes with a review of Saudi Arabia's major environmental policies and programs.

### *Land resources:*

The Kingdom of Saudi Arabia is located in the semi-arid Arabian Peninsula between 34 and 56 degrees longitude and 16 and 32 degrees latitude, covering an area more than 2 million square kilometers (Km<sup>2</sup>). It has long coastal lines along the Arabian Gulf in the east and the Red Sea in the west. The country is endowed with many natural resources including substantial oil, gas, mineral deposits among others. Of the total area, 93.1 percent is arid or semi-arid desert, with arable land

constituting only 5.1 percent of the total area, and the irrigated land only 0.6 percent. Forest area is only about 1.2 percent and is located mostly in the southwestern region of the country.

Land use in Saudi Arabia has witnessed rapid and substantial change over the past three decades due to urbanization and growth in agriculture. Planted crop area, which stood at 1,179,000 hectares in 1422/1423H (2002), has been growing at an average annual rate of 5.7 percent since 1392H (1972) (Table 9.1). This has been mainly driven by the support given to the agricultural sector over the successive development plans. This support included direct price support, soft loans to farmers<sup>(15)</sup>

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(15) A total of 408,355 agricultural loans (short and medium term) with an amount of SR (35.4) billion were disbursed over the period 1384-1423H (1964-2002). Subsidies paid to farmers during the same period amounted SR 12.7 billion. [Kingdom of Saudi Arabia, Ministry of Economy and Planning, Achievements of the Development Plans: Facts and Figures (1970-2002)].

<b>Land Resources, 1405, 1422 H (1985, 2002)</b>		<b>Table 9.1</b>	
	<b>1405</b>	<b>1422</b>	
	<b>1985</b>	<b>2002</b>	
Forest area as a percentage of Kingdom's area	1.2	1.2	
Arable land as a percentage of Kingdom's area	5.7	5.1	
Irrigated land as a percentage of Kingdom's area	0.5	0.6	
Desert area as a percentage of Kingdom's area	92.6	93.1	

*Source: Ministry of Agriculture; Ministry of Economy and Planning – CDS.*

and direct grants including land. More than 3 million hectares of farmland have been distributed to over 122 thousand individuals and farming enterprises. As Table 9.2 shows, the area of land distributed and the number of beneficiaries increased rapidly since 1412H (1982).

### **Water Resources:**

The water used in the Kingdom comes from four main sources: non-renewable ground water, renewable ground water, desalinated water and reclaimed waste-water (Table 9.3). The largest source by far is non-renewable ground water constituting 57.1 percent of total fresh water resources in 1422H (2002), while the smallest contribution comes from reclaimed waste-water (less than 0.9 percent). The share of desalinated water is only 3.8 percent. However, it is a main source of fresh

water in the major cities<sup>(16)</sup>.

On the demand side for water, Table (9.3) indicates that during 1422H (2002), the share of the agricultural sector in total water consumption amounted to 88.6 percent, while the shares of the domestic and municipal sector, and the industrial sector were 8.8 percent, and 2.6 percent, respectively.

Total fresh water withdrawal per capita stood at 918 cubic meters in 1422H (2002), or 50 percent above 1405H (1985) consumption levels.

The high rate of water consumption for agricultural purposes, mainly from non-

(16) The quantity of Water supplied by the desalination plants increased from 4.6 million gallons per day in 1390H (1970) to 458.1 million gallons per day in 1419H (1999). [Kingdom of Saudi Arabia, Ministry of Economy and Planning, Achievements of the Development plans: Facts and Figures (1970-2000)].

<b>Distributed Farm Land and Beneficiaries, Selected Years</b>						<b>Table 9.2</b>
	<b>1982</b>	<b>1985</b>	<b>1990</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Total area in Hectares	185,912	578,932	1,498,120	3,003,652	3,048,107	3,158,767
Number of beneficiaries (Cumulative)	28,028	44,639	74,969	112,671	114,871	122,601

*Source: Ministry of Agriculture – Department of Economic Studies and Statistics.*

<b>Water Supply and Demand, 1422H (2002)</b>		<b>Table 9.3</b>
	<b>Cubic meters (million)</b>	<b>Share (%)</b>
Total Supply	21450	100.0
Renewable ground and surface water	8000	37.3
Desalinated water	1050	4.9
Non-renewable ground water	12250	57.1
Reclaimed waste-water	150	0.7
Demand	21450	100.0
Domestic and Municipal	1900	8.8
Industrial	550	2.6
Agricultural	19000	88.6

**Fresh water withdrawals per capita = 918 cubic meters/year**

*Source: Ministry of Water and Electricity.*

renewable sources, is a growing concern of the officials in the Kingdom. This is particularly because the production of some water intensive crops, such as barley and wheat, has exceeded domestic needs.

In response, the Kingdom has undertaken a major review of its agricultural policy, which includes the reduction of subsidies to water intensive-crops, the adoption of modern water conservation technologies, along with encouraging the switch to water-efficient crops. The new policy has been successful in

reducing the amount of water used and the total area of such crops (table 9.4). The need, however, remains for further rationalization and better accounting of water resources to ensure the long-term sustainability of this vital national resource.

The quantity of water used in the industrial sector is estimated at about 550 million cubic meters or 2.6 percent of total estimated water demand of 21450 million cubic meters in 1422H (2002). There are 3242 operating factories in the Kingdom at 8 industrial zones

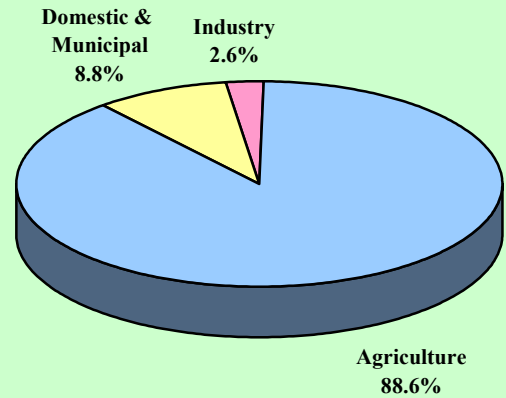


in a number of Saudi cities, besides the two major industrial cities of Jubail and Yanbu. Most of this water is consumed by the two major industrial cities of Jubail and Yanbu in order to meet the basic requirements of petrochemical and other industries. All industries located in the two industrial cities of Jubail and Yanbu are connected to central treatment plants where full recovery potentials are achieved. However, some of the plants in the industrial zones are not connected to the central wastewater treatment plants, which prevents the full reclamation of used water. To solve this problem, the wastewater network should be expanded and the capacity of treatment plants increased to cope with the rapid growth of industrial zones.

Average per capita water consumption in the domestic sector is estimated at 216 litres per day, which is comparable to world averages. However, large variance in this average is observed between various population centers with the average for some cities twice the national average.

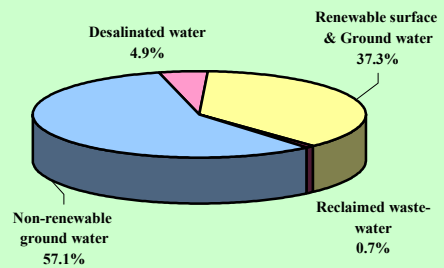
Fresh water supplies have been developed at a fast pace in order to meet the needs of a fast

**Structure of Water Demand 1422H (2002)** **Figure 9.1**



*Source: Table 9.3*

**Structure of Water Supply 1422H (2002)** **Figure 9.2**



*Source: Table 9.3*

growing population and improved standards of living. Since 1390H (1970), the private and public sectors have drilled about 108,000 potable water wells, or an average of 3,852 wells per year. These supplies have been supplemented by water from desalination plants whose average capacity reached 2.2 million cubic meters per day in 1420H (2000).

<b>Crop Pattern Area and Production by Crop, Selected Years</b>				<b>Table 9.4</b>		
<b>(Area in hectares; quantity in 000' metric tons)</b>						
	<b>1392 H (1972)</b>	<b>1410 H (1990)</b>	<b>1422 H (2002)*</b>	<b>Share Total Area (%)</b>		
				<b>1392 H (1972)</b>	<b>1410 H (1990)</b>	<b>1422 H (2002)</b>
<b>Cereals:</b>						
Area	155,573	978,336	636,000	61.3	70.9	53.9
Quantity	110	4,138	2,536			
<b>Vegetables:</b>						
Area	29,419	108,914	129,000	11.6	7.9	11.0
Quantity	653	1,900	2,138			
<b>Fruits:</b>						
Area	36,423	90,934	197,000	14.4	6.6	16.7
Quantity	240	804	1,144			
<b>Fodder:</b>						
Area	32,300	200,993	217,000	12.7	14.6	18.4
Quantity	355	2,106	2,790			
<b>Total:</b>						
Area	253,715	1,379,177	1,179,000	100.0	100.0	100.0
Quantity	1,358	8,948	8,608			

**\* Preliminary data.**  
*Source: Ministry of Agriculture, Department of Economic Studies and Statistics.*

As a result, all residents of the Kingdom have access to potable water, with 70.2 percent of households connected to the public network and 24.2 percent served via tankers, while the remainder rely on wells and other means (Table 9.5).

The Kingdom recognized the critical importance of the water resource early in its economic and social development process and consequently accorded water conservation highest priority in its development plans. The Seventh Plan 1420-1424H (2000-2004) calls for improvement in the utilization of economic and natural

resources. More specifically, it calls for making water a principal cost-factor in the cost-benefit analysis of projects.

Consistent with the above principles, water conservation policies are being implemented

<b>Type of Water Supply for Domestic Purpose, 1999</b>		<b>Table 9.5</b>
	<b>Number of Housing Units</b>	<b>Percentage</b>
Public Network	2,382,208	70.2
Via Trucks (water tankers)	821,546	24.2
Well	122,574	3.6
Other	68,884	2.0
<b>Total</b>	<b>3,395,212</b>	<b>100.0</b>

*Source: Ministry of Economy and Planning – Central Department of Statistics.*

in various sectors. The Kingdom has adopted, since 1415H (1995), a graduated tariff for water consumption aimed at promoting conservation and rational use. Moreover, ground water exploitation is being rationalized especially for utilization in agriculture, while educational and awareness campaigns are frequently conducted on the national importance of conserving water. The various policies and measures implemented notwithstanding, it is essential that the economic criteria stipulated in the Seventh Plan be consistently and widely enforced in all projects where water is a major factor. Furthermore, the assumed price of water used in cost-benefit studies must reflect marginal cost, which in the case of the Kingdom, must be equal to the opportunity cost of desalinated water. Given the relatively higher cost of desalinated water compared to other sources, a proper enforcement of the above rule would contribute to conservation and rational use of water resources.

In spite of the efforts undertaken by the Government and private sector for encouraging the rational use and conservation of water in the domestic sector, the high levels of consumption in major cities indicate

the possibility of achieving further rationalization in this area. Improved management and monitoring of distribution networks could help reduce wastage. Furthermore, connection of residential units and commercial enterprises to public drainage networks, coupled with increase of wastewater collection and treatment capacity, will achieve the required rationalization of this important resource. The dual benefits of conserving the precious water resource and protecting the environment through water reclamation make it necessary to exert more concerted efforts in this area. In this regard, the approval and implementation of the comprehensive National Water Plan currently under preparation, will provide the basis for an efficient and integrated management of this strategic resource.

### **Energy resources and their use**

Saudi Arabia is endowed with substantial energy resources consisting of mostly crude oil and natural gas. Its proven oil reserves are the world's largest, estimated at 261.2 billion barrels in 1422H (2002), or 24.8 percent of total world oil reserves. As to natural gas, total proven reserves stood at 234.6 trillion cubic feet (cf) in 1422H (2002) or 4.14

percent of total world reserves. The Kingdom is the world's largest producer and exporter of oil, with average production reaching 2589 million barrels in 1422H (2002). (Table 9.6).

Petroleum exports have been the main source of finance of the Kingdom's development effort, and energy is the largest industry in the national economy. With increased economic diversification, dependence on oil has been decreasing, although it remains relatively high. Consequently, the major challenge for the Kingdom remains the efficient shift from

dependence on depletable oil resources to dependence on renewable human, technological and knowledge assets that will ensure good living standards for future generations. Indeed, sustainable development, builds on the important principle of conserving natural resources coupled with prompt efforts to diversify the economy. Such efforts should rely on science and technology, with due care given to production of high value added goods and services, in a clean and healthy natural environment.

<b>Major Energy Indicators, Local Production for Selected Years</b>						<b>Table 9.6</b>	
<b>Energy Indicators</b>	<b>Years</b>					<b>Average annual rate of growth (percent)</b>	
	<b>1390H (1970)</b>	<b>1400H (1980)</b>	<b>1410H (1990)</b>	<b>1420H (2000)</b>	<b>1422H (2002)</b>	<b>1970-2000</b>	<b>1990-2000</b>
Crude oil production (million Barrels)	1,386.7	3,623.8	2,340.5	2962.6	2589.0	2.6	2.4
Natural gas production (billion cu f)	728.8	1,882.2	1,462.9	1764.4 *	2588.0	3.1	2.1
Crude oil reserves (Trillion barrels)	138.7	167.5	260.3	262.8	261.2	2.2	0.10
Natural gas reserves (billion cu f)	..	113.3	184.6	222.5	234.6	6.0	2.1
Local consumption (million bcoe)	27.2	253.8	480.9	711.7	772.4	11.5	4.0
Energy consumption per capita (bcoe)	4.3	26.3	30.6	32.4	33.0	7.0	0.6
Population (million)	6.32	9.65	15.71	22.0	23.38	2.2	3.4

**bcoe = barrel of crude oil equivalent.**  
**.. not available.**  
**Source: Ministry of Petroleum and Mineral Resources; Ministry of Economy and Planning – Central Department of Statistics.**

From 1390H (1970) to 1420H (2000), primary energy consumption in Saudi Arabia grew at a high rate of 11.5 percent per annum, almost three times the average growth (4.1 percent) of the economy. This is consistent with expectations for the rapidly developing economies. On a per capita basis, energy consumption (Figure 9.3) has increased at an annual rate of 7 percent over the past 30 years.

### Current Environment Situation

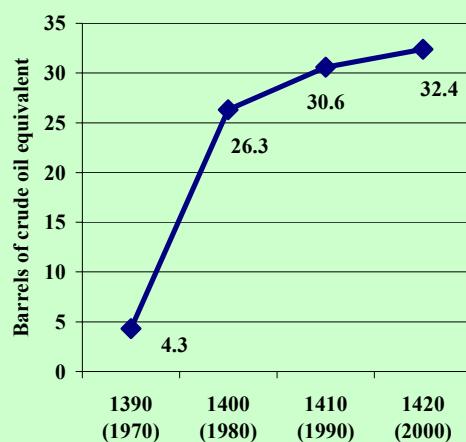
#### *Air pollution:*

Air pollution results from the significant amounts of gas emissions and compounds including Carbon Monoxide (CO), Sulfur Dioxide (SO<sub>2</sub>), Nitrogen Oxides (NO<sub>2</sub>), particles, and Volatile Organic Compounds (VOCs). Industry and transport are the two primary sources of air pollution in Saudi Arabia. SO<sub>2</sub> is produced in the petroleum, power generation and water desalination sectors. Road traffic is responsible for a large part of NO<sub>2</sub> and CO produced, while another part is produced by the desalination, power generation and agricultural sectors combined. Cement plants account for the bulk of organic particle and dust releases. VOC emissions come primarily from road traffic. Car

ownership is quite high with one car for every 2.8 individuals in 1418H (1998), or the equivalent of nearly 7 million vehicles using the Kingdom's roads and highways. The problem of lead emissions has been addressed through total conversion to lead-free gasoline. A small percentage of organic compounds emissions comes from industry in the form of diffuse releases.

A number of policies and measures have been adopted recently which should help reduce the rate of air pollutants emission. Most important measures include: use of lead-free gasoline and the rationalization of gasoline and electricity prices and emphasis on conservation. Furthermore, measures for improved efficiency in the electricity and

**Energy Consumption Per Capita** **Figure 9.3**



*Source: Table 9.6*

desalination sectors, including privatization and the introduction of competition, will also result in reduced emissions by these sectors.

**Water Pollution:**

Sewage is the primary source of water pollution in Saudi Arabia. It is estimated that 90 percent of the total water pollutants, represented by Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Phosphorous (P), and Nitrogen (N)) are generated from sewage and human waste. This results mainly from municipal wastewater not connected to sewage treatment plants. This issue is being addressed by giving priority, in the development plans, to the expansion of sewage networks, particularly in urban areas. However, the high rates of growth of the cities will necessitate extensive efforts to achieve such objectives, (Table 9.7).

The industrial sector is another source of water pollution, specifically industries not connected to wastewater treatment plants. All industries in the major industrial cities of Jubail and Yanbu, are connected to wastewater treatment plants, and most if not all the

**Type of Sanitary Drainage, 1421H (2001) Table 9.7**

	<b>Number of Housing Units</b>	<b>Percentage</b>
Public drainage network	1,380,334	40.3
Septic tanks	1,967,274	57.4
Unspecified	80,062	2.3
<b>Total</b>	<b>3,427,670</b>	<b>100.0</b>

*Source: Ministry of Economy and Planning  
-Central Department of Statistics.*

water is recycled. Work is underway on expansion of sewage water networks and treatment plants in other industrial areas.

Another source of water pollution is the large number of ships docking on Saudi ports, estimated at 11,907 ships in 1418H (1998). If ships docking on other ports in the Gulf and the Red Sea are considered, one can realize the potential pressure exerted on the coastal environment. Voluntary and involuntary dumping of petroleum products in the waters of the Gulf is endangering the natural habitat, while industries along the shores of the Kingdom are putting increasing pressure on the marine ecology. Luckily, so far, and except for spillage due to military operations and acts of war, the shipping accident rate is considered relatively low in light of the high traffic on these sea-lanes.

As to the Arabian Gulf and the Red Sea, intensive surveillance of sea-lanes is carried out by the competent authorities to prevent illegal petroleum dumping from ships washing on the high seas, in collaboration with neighboring countries and other concerned international agencies.

### ***Solid Waste:***

The main constituents of solid waste in Saudi Arabia are municipal solid waste, construction waste, medical and health waste and industrial waste. These are estimated to have totaled about 38 million tons in 1416H (1996). The largest component is construction waste (24 million tons), followed by municipal solid waste (12 million tons).

Municipal solid waste averaged a daily 1.2 kilograms per person in 1418H (1998) compared with 0.7 kilograms in 1395H (1975), according to a 1419H (1999) report by the Meteorology and Environmental Protection Administration (MEPA).

The number of junked vehicles amounted to 12,111 units in 1418H (1998), while the total volume of scrap metal was estimated at 5.85 million cubic meters for the same year.

The environmental pressures generated by solid waste are substantially mitigated by an active recycling industry operating throughout the Kingdom. In 1419H (1999), there were 45 operating recycling factories of all kinds in addition to 64 others under construction.

The main obstacles facing the recycling industry lie in the high cost of sorting at source, generally low quality recycled products in addition to general consumer aversion to the use of recycled products. Measures should therefore be taken to reconsider industrial and service processes, in order to reduce the waste generated through their activities, encourage proper waste sorting at source, and improve the economics of the recycling process.

It is noteworthy that radioactive waste in Saudi Arabia is separated and disposed off in accordance with the highest international standards and procedures. However, the need exists to monitor violations concerning hazardous medical waste which could pose problems to the environment.

### ***Bio-diversity:***

Preserving the diversity of flora and fauna in the Kingdom has been accorded high priority since the very early stages of national development planning. As a result, sixteen zones with a total area of 83456.5 square kilometers, or 4.2 percent of the Kingdom's area, are designated as protected national reserves. Hunting has also been prohibited in the entire Empty Quarter and the Nufud Regions. Among the protected areas are a number of sea zones, a habitat for various marine species, including the coral reefs.

A number of previously endangered wild species have been bred in captivity and successfully re-introduced to their natural habitat, of which the Reem Gazelle (deer) and the Arabian Maha (oryx) are best known.

The Saudi National Commission for Wildlife Conservation and Development (NCWCD) undertakes studies and research aimed at protecting natural diversity and habitat, including the physiology and techniques of breeding wildlife under captivity. It has succeeded in compiling a complete database with illustrative maps on the geographical distribution of large mammals (herbivores and

carnivores), as well as some important species of birds and wild plants, and identifying their natural habitats in the Saudi environment.

### **Policy Response**

Environmental pressures are expected to multiply over the medium to long-term due to continued economic growth in general, and growth in demand for energy, desalinated water, transport and other potentially polluting activities, in particular. The associated risks to public health and economic welfare can be quite high if policy responses on the part of citizens, factories, companies, and environmental policies do not rise to the level of the challenge. The formulation and adoption of the general environmental codes and standards are considered to be a first major step in the right direction; but in order to achieve their objectives, these codes and standards should be capable of responding effectively to the potential dangers of polluting sources. Furthermore, work is currently underway on completing environmental codes. Drafts of a "Code of Standards for Control of Hazardous Waste"; a "National Strategy for Health and Environment"; and a draft "Work Program and Guidelines for Disposing of Medical



Waste” have been prepared and submitted to the Ministerial Committee on the Environment for endorsement.

## **Regional and International Cooperation**

The extra-territorial nature of many environmental factors render regional and global cooperation in environmental protection and conservation a necessary condition for successfully meeting the challenges of pollution and the depletion of the world's natural resources. The international seas and oceans, the environment, the forests and the archeological sites are all resources shared by the world community; their protection and conservation must be shared by all nations.

The Kingdom of Saudi Arabia has been an active participant in regional and international environmental programs sponsored by the United Nations. At the regional level, the Kingdom cooperates with its brotherly states in the Gulf Cooperation Council (GCC) in safeguarding the environment and resources of the Arabian Gulf and in coordinating other aspects of environmental policy including the sharing of experience and information. Also

the Kingdom participates in the United Nations sponsored programs for the protection of the Red Sea.

At the international level, the Kingdom actively supports and participates in the various international conferences and environmental protocols such as the 1412H (1992) Earth Summit in Rio, Brazil, Climate Change Treaty and the Montreal Protocol on Protecting the Ozone Layer, among others.

## **Environmental Issues, Objectives and Policies**

The Seventh Development Plan highlights the following as key environmental issues:

- \* Deterioration of natural resources including desertification, the high ratio of water use, and degeneration of pasture.
- \* Poor level of citizens’ awareness of the importance of protecting and conserving the environment.
- \* Shortage of environmental data and information, which reflects negatively on the performance of the agencies responsible for the management and efficiency of the environment.

The Plan also identifies the following main environmental objectives:

- Conservation and protection of the environment from pollution.
- Conservation of natural resources to achieve sustainable development.
- Protection and conservation of wildlife, especially endangered species.

The following associated policies are also envisaged by the Seventh Development Plan:

- 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 conservation and development programs.
- Reviewing and updating environmental codes and developing standards and indicators relating to air, soil, ground water and surface water pollution, regularly reviewing these standards and developing departments related to environmental standards.
- Intensifying 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.

### **Institutional Structure for the Environment**

### **Box 9.2**

- \* Environmental policy in the Kingdom of Saudi Arabia is formulated and guided by the Ministerial Committee for Environmental Affairs.
- \* The Meteorology and Environmental Protection Administration (MEPA) is the Governmental body responsible for monitoring pollution and protecting the environment against pollution. It is responsible also for conducting environmental surveys and studies, and for formulating codes and standards in coordination with other concerned agencies in the public and private sectors.
- \* The National Commission for Wildlife Conservation and Development (NCWCD) is responsible for managing the national wildlife reserves and running various programs aimed at protecting bio-diversity; and conducting relevant studies and research and spreading awareness of the importance of conserving wildlife and environmental resources.
- \* Environmental protection activities are also undertaken by other public and private sector agencies, each in its sphere of competence, such as the Ministry of Municipal and Rural Affairs, the Ministry of Agriculture, Ministry of Water and Electricity, Ministry of Commerce and Industry, the Ministry of Interior, the Ministry of Health, King Abdul Aziz City for Science and Technology, the Royal Commission for Jubail and Yanbu, Saudi Aramco, SABIC, among others.

*Source: Ministry of Economy and Planning.*



## CHAPTER TEN



### FUTURE VISION: CHALLENGES AND ASPIRATIONS

#### Overview:

Human development occupies central place among the general objectives of the Kingdom's socio-economic development plans. These objectives emphasize the creation of conditions that enable citizens to become productive, through expansion of basic services in such fields as education, health and others. The importance of human development is further underscored by increasing the participation of manpower; upgrading their efficiency through training to meet the requirements of the national economy; and replacing non-Saudi manpower by Saudis. These objectives reflect the balanced approach towards integration of the economic, social and cultural dimensions of the development process.

The current domestic and international trends require the utilization of all available social and economic capabilities to face the challenges related to the realization of the Kingdom's long-term objectives in a fast changing global environment. The continuous

transformation to an increasingly open and interlinked global economy, with more reliance on advanced scientific knowledge, modern technologies, and accurate and comprehensive information, pose an enormous challenge to the ability of individuals, institutions and countries to compete in global markets and to maintain their economic and cultural achievements. However, the ability of nations to confront this challenge is related to their commitment to an on-going process of development of their education and training systems. In this respect, countries need to boost the role of advanced sciences and technologies in their economic and social activities, and should further develop their scientific research and development capabilities. Human resources development is a prerequisite for nations in their quest to develop and maintain their competitiveness. With the recent advances in communication technologies, information can be accessed at affordable cost, thereby opening for citizens new horizons for learning which could help them to acquire information

about scientific developments and new skills. On the other hand, these developments interact and affect traditional lifestyles and prevailing social values, making it imperative to develop effective approaches to young individuals' up-bringing and education, in order to ensure that the outcome of such cultural interaction conforms to the nation's values and principles. This qualitative challenge facing all segments of society, along with the quantitative challenge posed by population growth, call for a vigorous drive to further expand and develop all services and job opportunities. This challenge is at the top of priorities of Saudi Arabia's socio-economic development.

### **Development Planning and Future Directions**

The emphasis placed by the successive development plans on the various aspects of human development is quite evident in the foregoing chapters of this report. This testifies to the overriding priority accorded to human resources development by the Kingdom's development process. Regardless of the magnitude of public revenues, the government has ensured sufficient financial allocations to meet the growing needs for education, health

and other social services. The support given to the development of social services has been a landmark of the Kingdom's development process, and was not confined only to the most needy social categories but has also benefited most of the other segments of society. The attention given to human development is expected to continue into the future through more refined forms and approaches which are in line with domestic and international trends.

Development planning has responded over the past phases to the challenges and developments of each individual phase. It is only natural that the development process will undergo radical changes in order to stand up to the new challenges. It is very important to review some of these challenges and developments, in order to put the Kingdom's development planning into proper perspective and respond to these challenges effectively.

#### **On the domestic level:**

- The private sector is expected to play a driving role in the Kingdom's development process in the future. This includes provision of human development – related services, especially in view of the

privatization program currently under way. However, this should not be pursued at the expense of the government's social policy, which takes into consideration the requirements of successful human development.

- Sustainability of human development presupposes sustainable economic development. Thus in order to maintain the current achievements and reach the objectives of sustainable development, a strong drive should be pursued to realize economic diversification within the time horizon of the next two decades, as envisaged by the proposed future vision of the Saudi economy.
- Attainment of sustainable development requires on-going improvement of productivity and efficiency in all economic and social activities. It goes without saying that such improvements will have direct impact on human development sectors.
- The rapid advancement made by the Kingdom over the past three decades has led to the emergence of integrated population settlements that provide various opportunities for work and living. As such, these settlements have

grown into centers of attraction which cause migration from rural and remote areas. This process reduces the growth potential of rural areas and causes pressures on urban areas. Either way, such migration has negative impact on the quality of life and the social welfare of citizens. Moreover, it constitutes a serious challenge to developing the spatial dimension of the development process.

- A common factor that makes all the above challenges even more critical is the fact that the Kingdom is undergoing a development phase marked by relatively high rates of population growth. The Kingdom's demographic distribution, moreover, tilts in favor of young age-groups. This calls for efforts to be intensified in order to cater to educational, health and other needs, along with the creation of job opportunities. It might seem paradoxical, in the context of the socio-economic development process, that a high rate of population growth during the middle phases of development is a sign of a country's successful development.

### Key external challenges:

- Expansion of regional and global trade due to rapid dismantling of trade barriers and removal of obstacles. This makes competition more intense and underscores the importance of developing and upgrading national capacities in this respect.
- The choice of destination available to foreign investors and a variety of instruments for investment, makes attracting foreign investment more challenging.
- Need for increased connectivity to benefit from growing knowledge, information and cultural exchange among nations. This is facilitated by on-going advancements in information and communication technology in particular the quantitative and qualitative leap and the widespread use of the Internet. Against this background, national capabilities should be developed in the area of information and communication technology, and on-going efforts should be extended to create a firm scientific base built on a strong foundation of an integrated national system for scientific research and development.

The impact of these domestic and global developments on the methodology of development planning can be summarized as follows:

- Further develop indicative aspect of development planning in harmony with the increasing role of the private sector in the Kingdom's national economy. Towards this end, action will be taken for capacity-building in technical and scientific areas pertinent to the development process, coupled with increased volume and improved efficiency of collection and publication of socio-economic statistics.
- Improve involvement and cooperation in development planning among the various economic, social and cultural agencies, as well as other segments of society, in order to build a national consensus on the objectives and to strengthen implementation capacities.
- Place more emphasis on the spatial dimension of the planning process, in order to achieve balanced regional development and to minimize migration to urban areas, along with other aims that



would ultimately benefit human development endeavors.

- Adoption of the long-term strategic planning methodology. This is due to the fact that several developments associated with the above challenges are tied to time horizons that extend beyond the medium-term nature of the five-year development plans. In this respect, the Kingdom is in the process of developing a long-term strategy through which it will seek to realize the future vision of the Saudi economy over the next two decades. The intended strategy would establish a comprehensive framework for the individual phases of the development plans. Among other objectives, the long-term strategy will include the UN Millennium Development Goals, with their strong focus on human development, which the Kingdom has undertaken to realize.

## **Human Resources Development Means and Ends**

Human resources development in the Kingdom has been a major concern since the initiation of development planning 30 years ago. Consequently, considerable expansion

has been made in all educational stages over the past three decades. More than 340,000 students are enrolled in the Kingdom's eight universities and other higher education institutions. The priority given by the Kingdom to human resources development is quite evident through the fact that some 50 percent of total development expenditure in the state budget is allocated to the education sector.

However, over 45 percent of the Saudi population is less than 15 years old. Demographic projections point to continued rise in the growth rate of the age groups that require educational services. On the other hand, the various components of the educational system require on-going development, in order to keep abreast of advancements in various fields of knowledge and educational methods. As a result, the priority accorded to this sector will remain focused, over the foreseeable future, on boosting the capacity of education, as regards the quantitative and qualitative aspects, with an aim to strengthen students' abilities to assimilate advance scientific and technological innovations which are a prerequisite for increased competitiveness in an integrated

global economy.

On the other hand, the knowledge and skills profile, which would have guaranteed gainful employment for an individual for life, may not be sufficient to allow him to gain and to keep a job in the future, unless he pursues a lifetime of continued education and training to keep abreast of on-going developments and advancements in his field of work. This poses a major challenge for the Kingdom in its future development endeavors, which will not only seek to equip its youth with the skills needed through a high quality education system, but will also provide the resources for on-going education, through which they could gain rewarding employment and become productive in an increasingly competitive global economy. In order for the Kingdom to meet these challenges, current efforts must be intensified to improve the quality of education, with due emphasis on developing analytical and innovative capabilities of students. In addition, the Kingdom should continue to expand the capacity of educational institutions in line with the population increase and to raise the standards of general and higher education to the levels prevailing in the advanced countries. It should,

furthermore, expand the capacity of technical education and vocational training facilities, while continuing to improve their internal and external efficiency.

In view of the major significance of education and training within the context of human development, the following policies, directions and measures are included in the Kingdom's strategy aimed at realizing the future vision in this field:

- Continue to expand the capacity of education institutions, in order to cope with increasing demand for education due to population growth, while continuing to raise total enrolment ratios for both boys and girls in all educational stages.
- Continue to develop education, with emphasis on strengthening comprehension skills, creativity problem – solving and sound judgment. These skills are necessary to develop the innovative and analytical capabilities of students and to enable them to adapt to changing tasks in a diverse, knowledge and information driven society, while maintaining adherence to religious and cultural values.

- Expand the opportunities of educational choices, including expansion in numbers of specialized schools and institutes.
- Strengthen the process of performance monitoring and evaluation in all aspects of the entire educational system, in order to develop adequate policies and to identify the areas where the education processes needs further development measures.
- Continue to provide and expand opportunities for promising Saudi students to study abroad, in order to acquire specialized knowledge and sciences and to help in technology transfer and adaptation into the national economy.
- Expand education opportunities for persons who are already in the workforce (continuing education programs).
- Develop new means of funding for higher education, in order to help expand education services and rationalize demand. In the meantime, the state will continue to provide primary and secondary education free of charge in government schools with an aim to ensure universal access to education at these levels.

## **Women and Human Development**

During the past three decades, Saudi Arabia has made marked achievements in making education available for all, particularly women. This is based on its strong national belief that investment in women education maximizes the benefits earned by a developing nation. Education of women ensures substantial benefits to families such as improved family health as well as intellectually enriched family environment that underscores educational attainment on the part of children, particularly in their childhood. Thus, the returns of investments made by the Kingdom on girls education over the past few decades, represent a valuable human wealth that benefits the Saudi families in particular and the Saudi Society in general.

Women constitute 50 percent of university graduates. Consequently, providing them employment opportunities represents a major challenge facing the Kingdom during the coming years. In order to meet this challenge, the Kingdom is making efforts at different levels to realize its objectives in this domain.

These include:

- Expand areas available for women to work, and increase their employment

opportunities in line with Islamic teachings and values.

- Make use of ICT, particularly the Internet, with a view to ensure more job opportunities for women, specially for those who prefer house-based work for family reasons.
- Continue expanding women education along with upgrading their skills in light of the growing work opportunities available for educated women as reflected by the rates of participation in the labor market.
- Address the various factors influencing employment of women, such as provision of adequate transportation services, nursery services, part-time work and other relevant factors.

It is noteworthy that the Kingdom is currently developing a comprehensive population strategy that addresses maternity issues and family affairs along with other pertinent key elements. This strategy also presents adequate policies aimed at addressing these issues within an integrated framework covering policies and measures necessary for realization of national objectives.

## **Health Services: Continuity and Promotion**

Chapter (3) of this report highlights the level of progress witnessed by the health sector in Saudi Arabia over the past three decades, catapulting its health services to a comparable level with those in developed countries. Among the many indicators of this progress is the achievement of comprehensive coverage of health services, as the rate of service accessibility accounted for 99 percent in 1422H (2002). There is an average of 160 physicians and 340 nurses per 100,000 population while total expenditures on health services accounted for about 8 percent of GDP (public sector 6.4 percent and private sector 1.6 percent).

The Kingdom has developed an efficient network of primary care as well as an integrated system of monitoring and combating communicable and infectious diseases. Higher immunization rates have been realized, which have become closer to the planned comprehensive coverage. These achievements have contributed to the progress made regarding health related human development indices including life expectancy, mortality rates of infants and

children below 5 years of age, as well as full control of infectious diseases such as malaria, smallpox, measles, etc.

Notwithstanding these achievements, there are still many challenges which the Kingdom faces in the field of health services, mainly raising the health standards of the population to the status of countries with higher levels of human development. These challenges include the following:

- Continue with expansion and development of health services in order to meet the growing needs of the population.
- Develop internal and external efficiency of the health system and strengthen its capacity, particularly in rural and remote areas.
- Expand the role of the private sector in providing health services along with ensuring access of needy segments of the population to high quality health services.
- Apply the comprehensive health insurance system in a gradual manner to non-Saudis, and later to Saudis.
- Continue to raise the share of national manpower, particularly skilled and semi-skilled, in the total manpower of the health sector.

- Continue to develop health databases in line with the changing needs of the society for health services, to serve as an efficient basis for developing management of health services at the national and regional levels.
- Realize comprehensive coverage concerning immunization and protection against infectious diseases, child diseases, as well as obstetric and maternity services.
- Raise health awareness through health education and awareness campaigns for families, particularly in rural areas.
- Strengthen regional and international cooperation in controlling the spread of infectious diseases, along with continually consolidating control centers at the Kingdom's entry ports particularly during Hajj and Umrah seasons.

## **Environment and Natural Resources:**

### ***Development Tributaries***

The Kingdom's long term socio-economic development is mainly characterized by the fact that its strategy is based on two spatially and temporally integrated elements. The first one involves endeavors to utilize non-renewable natural resources, particularly

petroleum and mineral resources, in a way that enables the Kingdom to transfer these non-renewable resources into renewable and permanent economic, human and knowledge resources. In other words, transfer of temporary or depleting resources into permanent ones. The second one tackles the accomplishment of the aforesaid objective along with conservation of the natural environment and its various components, such as water, air, land, as well as animal and plant resources.

The first element sets the framework of the Kingdom's oil strategy which is based on maximizing oil revenues and investing such revenues on human development sectors and other economic sectors such as agriculture, industry and services, as well as scientific research and development sector. Maximizing oil and natural gas revenues requires stability of international energy markets along with moderate levels of oil prices that would support growth of global economy and maintain oil's comparative advantage over potential alternatives.

This element also encompasses national development policies aimed at maximizing

the domestic value added of national resources through development of industries and other activities that are based on these resources.

The second element leads to realizing this shift in the structure and nature of economic activity consistent with conservation and protection of the natural environment against pollution and deterioration, in addition to protecting its fauna and flora diversity. This element also comprises optimal utilization of water resources. In this context, the Kingdom has adopted a comprehensive and integrated management approach for water. This encompasses development of water sources, building distribution, storage and treatment systems to reduce losses, maximizing re-use activity and rationalizing final consumption through integrated policies and measures that serve this objective. Modern technology plays a vital role in each of these three stages. Desalination technologies which currently boost provision of potable water in major cities, are also expected to increasingly contribute in enhancing water sources. On the other hand, technologies of treatment, re-use, rationalization of consumption and elimination of losses, constitute the areas of

focus within the comprehensive and integrated management of water in the Kingdom. Furthermore, including real water cost in the feasibility studies of projects, as called for by the development strategy, represents an advanced step and an effective measure towards rationalization of water consumption.

Concerning control of pollution, the Kingdom's strategy and future directions will stress, inter alia, on application of rules and regulations adopted for environmental protection in order to ensure full commitment to environmental regulations. These policies and directions will also emphasize developing these rules and regulations in light of domestic and international experiences, as well as scientific and technological developments that affect the environment.

### **Employment of Saudi Nationals**

The strategy for the development of human resources implies development of Saudi national manpower and exerting necessary efforts to increase its rate of participation in the labor force.

Employment opportunities for new Saudi

entrants into the labor market will be generated by economic growth, replacement of expatriate workforce, and replacement of Saudis who vacate jobs due to retirement and other reasons. In this context, and in order to realize the future vision for the development of human resources, it is imperative to continue implementation of Saudization policies through replacement of expatriate labor force by Saudis. This should be done along with rationalizing the recruitment of expatriates and restricting them to professions and skills that are not available in the domestic labor market. Moreover, appropriate measures should be taken to implement the objectives of national manpower employment strategy and to reinforce the role of the private sector in the employment of national manpower within the framework of appropriate and effective policies.

The employment trend in the government is focused on replacement of foreign labor by Saudi labor. However as this sector is approaching the stage of full employment by nationals, in addition to the privatization process, which is becoming one of the main drivers of development, it has become

necessary to redirect manpower policies towards responding to the needs of the private sector.

In this respect, the government places special emphasis on matching education outputs with labor demand, especially by the private sector. Many measures have been adopted in this connection, of which the most important are:

- Evaluating performance of the education and training system with a view to develop and upgrade its efficiency along with improving the standard of graduates and enhancing their capabilities. Education should focus on developing comprehension faculties and analytical skills of students.
- Intensifying pre-service and on-the-job training programs with the involvement of the private sector in the design and preparation of these programs, so that they can meet the sector's labor requirements and be cost-effective. The Human Resources Development Fund provides adequate incentives for the private sector to train and requalify Saudi manpower and, eventually, to employ them.

- Improving the labor market services by creating an up-to-date and comprehensive database that is accessible to all potential users, along with making greater use of modern communication technology, particularly the internet, in the dissemination of such data.

### **A New Development Paradigm**

State management of the petroleum sector and the revenues this sector generates provided the means for financing the rapid development that the Kingdom has achieved over the last three decades. This system of distributing the oil wealth has been the key to the rapid advance of the Kingdom on the human development front, when the private sector lacked the capacity to assume a more effective role in the Kingdom's development. However, over time, this system has also created a sort of comprehensive care relation between the state and individuals, and between the state and private sector firms. Unstable petroleum export revenues, on the one hand, and the growing requirements of development on the other hand, are not compatible with the requirements of economic stability and targeted sustainable development. The existing pattern may not guarantee a sound



and reliable basis for human development in the long run. Thus, it is necessary to continue the trend of shifting gradually to a new development paradigm premised on building a society where the State and the private sector initiatives complement each other, and which affirms the individual's self-reliance and releases his creative energies for the purpose of developing himself and the society in the present information- and knowledge-driven world.

The new paradigm is characterized by the following features:

- Instilling in individuals a stronger sense of responsibility and strengthening their capacity to contribute to furthering the nation's social and economic well being.
- Facilitating the private sector's ability to assume a leading role in the Kingdom's future development, including major responsibilities for the provision of services related to human development.
- Increasingly focusing the role of the Government in economic management on establishing market rules and regulations for the private sector economic activity, addressing related problems, creating social safety nets to protect individuals

and providing services in cases where markets do not function effectively.

- Science and technology must be given greater focus for being one of the most important growth factors in the new economy.

## **Towards Greater Economic Diversification**

The process of diversifying the Kingdom's economic base has achieved some success as evidenced by the rising contributions of the non-oil sector to the GDP to 68.4 percent by the beginning of the Seventh Plan. On the other hand, non-oil exports represented about 27.4 percent of total exports of goods and services and about 11.4 percent of GDP at 1419H (1999) current prices.

However, further expansion of economic activity and the broadening of the production base must be continued to achieve greater growth and stability for the national economy. This can be done by placing continuous emphasis on the following policies:

- Creating high value-added and high technology industries, and promoting research and development.
- Promoting export oriented industries

besides enhancing non-oil mineral exports.

- Supporting the diversification strategy with other integrated strategies and policies covering human resources development, privatization, and foreign direct investment promotion, while enhancing the economy's comparative advantage, business environment and integration with regional and global economies.



## ABBREVIATIONS:

<b>BCOE:</b>	Barrels of crude oil equivalent	<b>CDS:</b>	Central Department of Statistics
<b>BOT:</b>	Build, Operate and Transfer	<b>NCWCD:</b>	National Commission for Wildlife Conservation and Development
<b>Cu f:</b>	Cubic feet	<b>OECD:</b>	Organization for Economic Cooperation and Development
<b>CPM:</b>	Capability Poverty Measure	<b>REDF:</b>	Real Estate Development Fund
<b>DMSA:</b>	Deputy Ministry for Social Affairs	<b>SABIC:</b>	Saudi Basic Industries Corporation
<b>GCC:</b>	Gulf Cooperation Council	<b>UNDP:</b>	United Nations Development Programme
<b>GDI:</b>	Gender-related Development Index	<b>UNDESA:</b>	United Nations Department of Economic and Social Affairs
<b>GDP:</b>	Gross Domestic Product	<b>UNESCO:</b>	United Nations Educational, Scientific and Cultural Organization
<b>GEM:</b>	Gender Empowerment Index		
<b>GNP:</b>	Gross National Product		
<b>GOSI:</b>	General Organization for Social Insurance		
<b>GTZ:</b>	Deutsche Gesellschaft Fuer Technische Zusammenarbeit (German Technical Cooperation)		
<b>HDI:</b>	Human Development Index		
<b>HPI:</b>	Human Poverty Index		
<b>Km<sup>2</sup>:</b>	Square Kilometer		
<b>MEPA:</b>	Metrology and Environmental Protection Administration		
<b>MOH:</b>	Ministry of Health		
<b>MOEP:</b>	Ministry of Economy and Planning		