1.2 Population of the Kingdom

Based upon actual general statistics for the Kingdom population and housing which was carried out in 1992, the Ministry of Planning projected the population of Saudi Arabia to be 22.01 million persons in 2000, 16.21 million of them were Saudi nationals and the rest (5.80 million) were foreign labor and their dependents.

Age wise, the Kingdom is considered as one of the countries that have the highest percentage of young people. The average age of the Saudi population in 2000 was 16 years. Comparing this to the highest and lowest average age in the world, SAMA report for 2001 reported that the highest average age was in Japan (41.2 years) and lowest was in Yemen (15 years). So, the Saudi population average age in 2000 was far lower than the highest record and just one-year higher than the lowest record in the world. More over, 74% of the Saudis are below 30 years of age and 38% of them are below 11 years of age. The percent of Saudis at the working age (12-64 years) was around 58% of the total Saudi population (SAMA report for 2001).

Figure: Table (1-6)

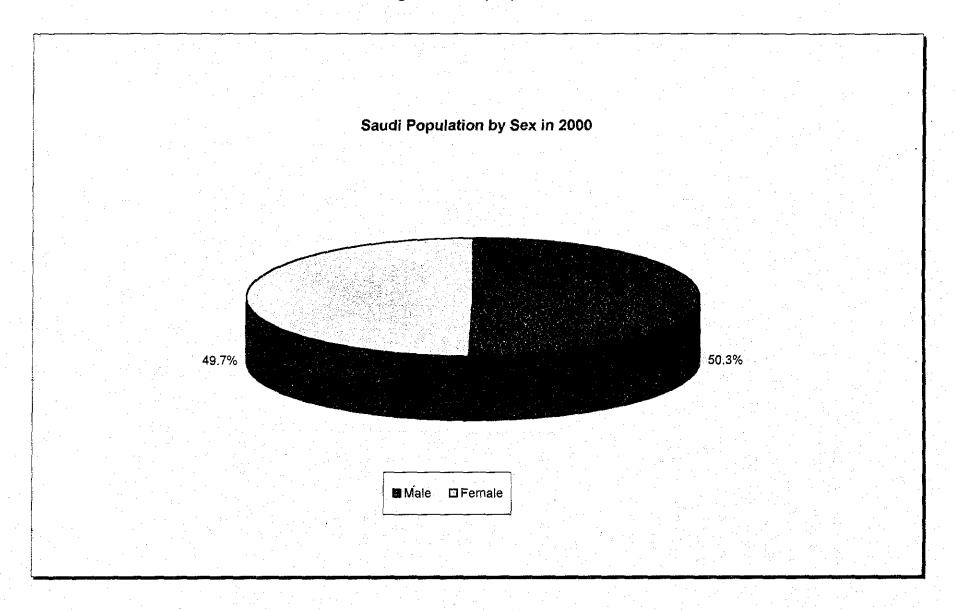


Table (1-6)
Saudi Population By
Age Group, Sex, Relative Distribution
And Sex Ratio in 2000
(Numbers in Thousand)

No.	1	Relative distribution of Saudi population						
Age group	e group Total Male Female		Total	Male	Female	Ratio of male to female %		
Total	16,208	8,151	8,057	100,0	100,0	100,0	101,2	
0-4	2,820	1,436	1,384	17,4	17,6	17,2	103,7	
5-9	2,459	1,250	1,209	15,2	15,3	15,0	103,5	
10-14	2,109	1,071	1,038	13,0	13,1	12,9	103,1	
15-19	1,799	911	888	11,1	11,2	11,0	102,6	
20-24	1,513	765	748	9,3	9,4	9,3	102,1	
25-29	1,212	608	604	7,5	7,5	6,5	100,7	
30-34	965	481	484	6,0	5,9	6,0	99,4	
35-39	805	402	403	5,0	4,9	5,0	99,8	
40-44	653	326	327	4,0	4,0	4,1	99,7	
45-49	489	242	247	3,0	3,0	3,1	98,3	
50-54	378	185	193	2,3	2,3	2,4	96,2	
55-59	298	143	155	1,8	1,8	1,9	92,3	
60-69	419	198	221	2,6	2,4	2,7	89,9	
70 & over	289	133	156	1,8	1,6	1,9	85,2	

Source: Ministry of Planning, Central Department of Statistics.

Sex wise, the number of Saudi males in 2000 was 8.15 million and the number of females was 8.06 million. The ratio of males to females was 101.2, and the percentage of males from the total population was 50.28% and that of females was 49.72%, Table (1-6). According to the same table, the number of Saudis who were 14 years old and below were 7.39 million persons and those who were above 60 years old were only 708,000 persons. That means 8.10 million persons were outside the labor force (49.97%) and 8.11 million persons (50.03%), minus those who are continuing their education in secondary schools and universities, and those who were seriously

searching for jobs, were in the labor force. Also, it could be seen from table (1-6) that at younger ages (0-29 years) the ratio of males to females was higher than at older ages (more than 30 years). That means for population aged more than 30 years, Saudi women out number Saudi men, Table (1-6).

1.2.1 Population Structure and Growth

The annual growth rate of population in Saudi Arabia, which is rated as one of the highest in the World, is declining. In 1995 when the Kingdom population was estimated at 18.80 million persons, the annual growth rate of population was 3.6% per year, which declined to 3.2% in 1999 when the estimated Kingdom population was 21.33 million persons. In the year 2000 when the Kingdom population was estimated at 22.01 million persons, the growth rate of population was 3.1% per annum, Table (1-7).

Table (1-7)
Population Structure of the Kingdom During
1995,1999 and 2000

Population, ratios and growth rates	Years				
r opulation, ratios and growth rates	1995	1999	2000		
Total Population (In millions)	18.80	21.33	22.01		
Annual growth rate (%)	3.6	3.2	3.1		
Average growth rate in the period 1995-2000(%)			3.1		
Saudi population (In millions)	13.59	15.66	16.21		
Annual growth rate (%)	3.6	3.5	3.5		
Ratios to total population (%)	72.3	73.4	73.6		
Average growth rate in the period 1995-2000(%)	. 1:		3.5		
Non-Saudi population (In millions)	5.21	5.68	5.80		
Annual growth rate (%)	1.7	2.4	2.2		
Ratios to total population (%)	27.7	26.6	26.4		
Average growth rate in the period 1995-2000(%)			2.1		

Source: Ministry of Planning, Central Department of Statistics.

Figure: Table (1-7)

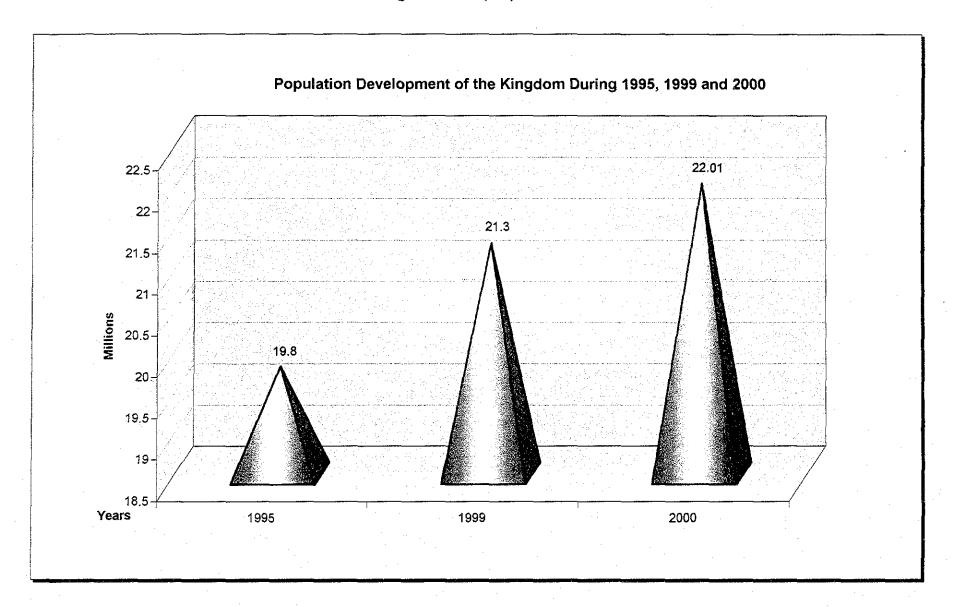
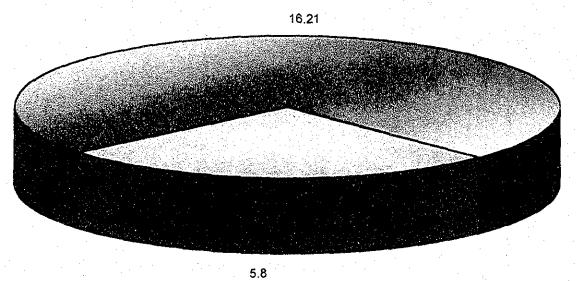


Figure: Table (1-7)

Population Structure in the Kingdom in the Year 2000



■ Saudi Population (in millions)

□ Non-Saudi population (in millions)

As for non-Saudi population the annual growth rate in 1995, when their number was 5.21 million persons, was 1.7% which increased to 2.4% in 1999 when their number became 5.68 million persons, then it declined to 2.2% per annum in 2000 when their number became 5.8 million persons. The average growth rate of non-Saudi population during (1995 – 2000) was 2.1% per annum, Table (1-7).

1.2.2 Future Saudi Population

The Seventh Development Plan estimated the Saudi population at 29.7 million persons in the year 2020. That means the Saudi population in 2000 (16.2 million) will increase by 83.3%, at an average annual growth rate of 3.0% per year. The total population in Saudi Arabia in the said year is expected to be 33.4 million persons rising from 22 million persons in 2000. This is a 51.4% increase, at an average rate of 2.1 percent per annum. The Non-Saudi population is expected to be 3.7 million persons by 2020, which is 11.1% of the total population in the Kingdom.

1.2.3 Labor Force in Saudi Arabia

According to the Seventh Development Plan, the total number of the labor force in Saudi Arabia in 1999 was around 7.2 million persons, 44.2% of them (3.2 million persons) were Saudis and 55.8% of them (4million persons) were non-Saudis.

The formal civilian labor force in Saudi Arabia is distributed between the government sector and the private sector like in all other economies of the world. As the Saudi economy is a market economy run mainly by the private sector, it is expected that most of the labor force will be working in this sector. Out of the 7.2 million civilian employees in the Kingdom only 0.9 million (12.5%) are working in the government sector, whereas 6.2 million employees (87.5%) are working in the private sector.

Out of the 6.2 million civilian employees 3.2 million (51.5%) were non-Saudis, whereas 3 million were Saudis (48.5%).

Future expectations show that most of the new jobs will also be in the private sector due to the privatization processes going on in the Saudi Economy. The Seventh Development Plan expects that 94.5% of the new jobs (311,000 jobs expected to be realized during the five years of this plan 2000 –2004) will be in the private sector. It is also expected that during these five years the share of Saudis in the labor force will increase to 53.2%. At the end of the Seventh Development Plan (2004) the total labor force in Saudi Arabia is expected to reach 7.5 million employees.

1.2.4 Distribution of the Labor Force by Profession

In 1999 the labor force was distributed according to professions as shown in table (1-8). 30.5% were working in production, construction and transportation, 29.8% in the services personnel and 15.6% were working in professional and technical jobs. The rest, (24.1%) were engaged in agriculture and related jobs (7.7%), clerical jobs (7.4%), sales personnel (7.1%) and 1.9% were in management and administration.

The highest expected average growth rate was in production, construction and transportation jobs (1.4%), followed by the growth rate of management and administration (1.3%), then agriculture and related jobs (0.9%) and professional and technical jobs (0.7%), Table (1-8).

Table (1-8)
Distribution of Saudi Labor Force According
To their Professions in 1999

Professions	No. of workers (In Thousand)	Ratio (%)	Expected average Annual Growth Rate (%)			
Professional and Technical	1122.4	15.6	0.7			
Management and Administration	133.9	1.9	1.3			
Clerical	534.4	7.4	0.9			
Sales Personnel	507.6	7.1	0.8			
Services Personnel	2138.1	29.8	0.5			
Agriculture and Related	551.0	7.7	0.9			
Production, Construction & Transportation	2188.9	30.5	1.4			
Total	7176.3	100	0.9			

Source: Ministry of Planning, The Seventh Development Plan.

1.3 Manpower Development Planning

Planning for manpower development in Saudi Arabia is presented in here based upon reviewing the parts and sections concerning manpower in the four past development plans starting from the Third to the Sixth Development Plan, to cover the twenty years period (1980-2000) chosen for this study. However, the current Seventh Development Plan is also reviewed for this purpose to see what is expected for manpower development till 2004. All the development plans gave human resources development, manpower and the labor market analysis top priority because of the severe shortage of labor in this country in the face of the huge capital acquired after the oil boom in 1973.

1.3.1 The Third Development Plan (1980 – 1985)

The Third Development Plan gave the human resources development top priority at the national level, because the effective utilization of the available manpower was the basic element of the comprehensive strategy of that plan. This plan had four specific objectives for human resources development, namely:

- To increase the total number of the available manpower.
- To increase manpower productivity in all sectors of the Saudi economy.
- To allocate manpower between all sectors that have high growth potential and can achieve the highest productivity.
- To reduce the dependence on foreign manpower.

To achieve these objectives, the Third Development Plan adopted the following policies:

- 1.3.1.1 Education: Opening enough schools at the elementary and intermediate levels for both boys and girls, and direct a certain percentage of them to continue their formal education, or join technical and training institutes, according to the needs of the national economy for different skills. The university students grants should be given only to the outstanding students, and for those pursuing their education in the mostly needed specializations. The educational programs at the elementary, intermediate and secondary schools as well as the university levels should be reviewed to make sure they are on line with the Islamic Teachings and coping with the changing needs of the society and the economy.
- 1.3.1.2 <u>Training</u>: Encourage the private sector to expand its training programs and support industrial institutions, financially, if they included training of Saudis for the skills they need in their institutions. The government will re-evaluate the incentives system to encourage Saudi citizens to acquire training in technical and professional areas.

Figure: Table (1-8)

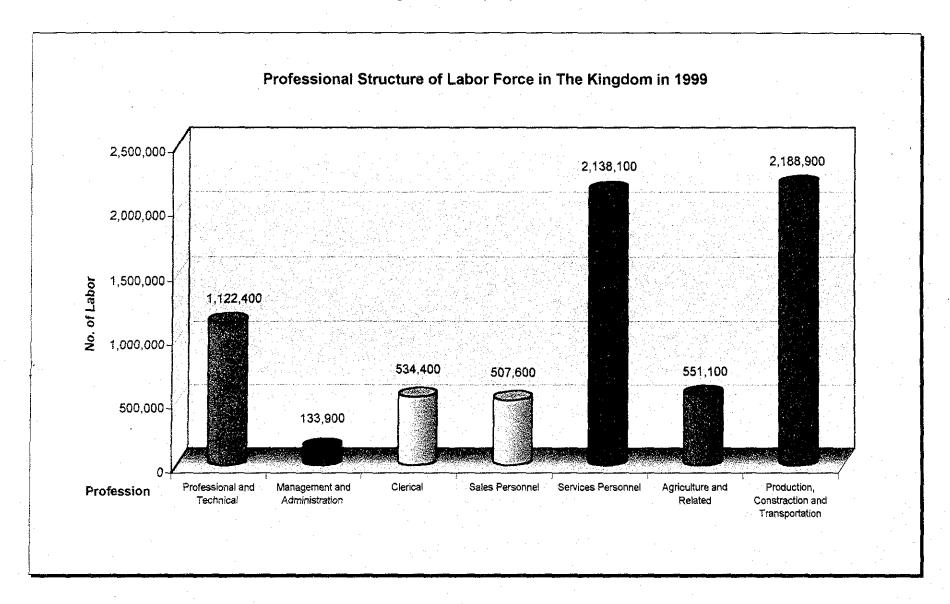
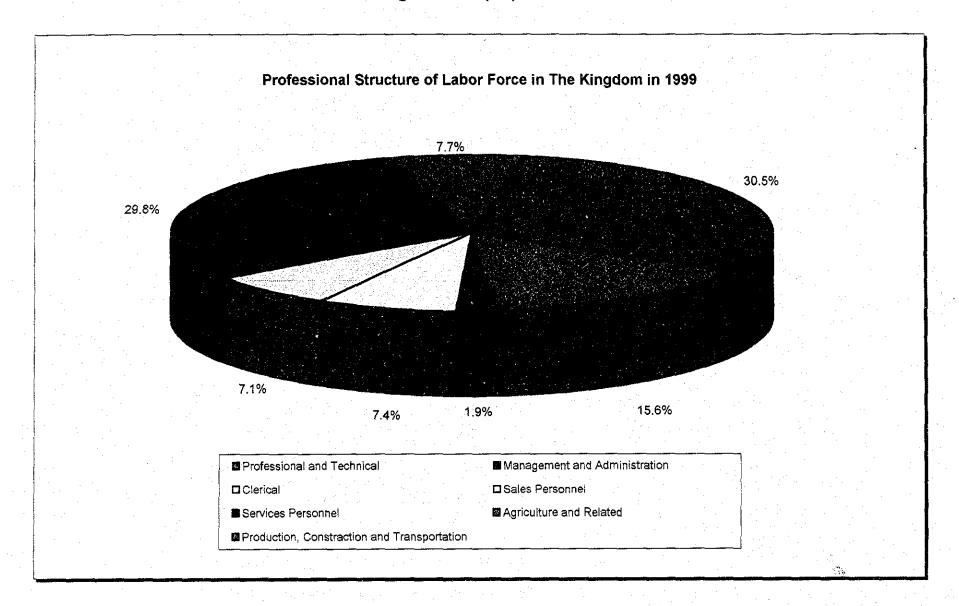


Figure: Table (1-8)



- 1.3.1.3 Reallocation of manpower: Encourage redundant manpower working in remote areas and in limited capabilities economic activities to relocate in areas and sectors with high growth potentials and more production. The government will gradually get rid of Saudi labor working at the lower employment levels to encourage them for training in the different technical and professional areas.
- 1.3.1.4 Planning and administration of manpower: Research on reallocation of manpower will be expanded to include the needed statistical information that will help developing manpower in the future through close cooperation with Saudi Universities and the respective Ministries. A Ministerial level committee will be formed to put the basis for women employment in accordance with the Islamic Teachings. The government will benefit from the expertise available in the Saudi Universities and the Military in executing the approved development projects and in supervising them.

1.3.2 The Fourth Development Plan (1985-1990)

This plan aimed at increasing labor productivity at the rate of 4% per year in the Saudi Economy as a whole. That meant the total number of employees during that plan (1405-1410) should have declined by 855,500 employees. It also aimed at increasing productivity in the non- oil sector at the rate of 2.9% per year, which meant that the number of employees in this sector will increase by 630,000 employees. The net effect of achieving those two objectives was a reduction of 225,500 employees, while the Saudi manpower was expected to increase by 374,700 employees. That means, in its turn, a total of 600,000 non-Saudi employees will be replaced by Saudis during the plan five years period. The percentage of Saudis in the total manpower would have increased from 40.2% at the beginning of plan to 52% at the end of the plan.

Most of the new jobs in that plan would have been in the private sector. The government employment was expected to stay the same without an appreciable change except that more non -Saudis would have been replaced by Saudis.

It was expected during the fourth plan that the market system will lead to higher productivity of Saudi manpower, which will necessarily lead to releasing more foreign labor. To achieve that, the government decided to do the following:

a) Concerning Saudis

- Support Saudis newly entering the labour market to improve or obtain the necessary vocational skills.
- Specify conditions for female employment.

b) Concerning the non-Saudis

- Limit new expatriate employment to the growing sectors (especially in agriculture, manufacturing, financial) and business services.

The high growth of foreign labor during the third plan which reached 11.7% per year would be reversed during the fourth plan in order to decline to 5% per year. That was because of the decline in demand for labor in the non-oil sector which was expected to decline by a net of 226,000 employees, at a net average annual rate of 1.1%, during the Fourth Development Plan period.

Employment in the public (civilian), the private services and the real state sectors was expected to decline slightly while employment in the construction and trade sectors was expected to decline by 305,000 and 63,100 employees respectively. Employment in the manufacturing (excluding petro-chemicals) and agricultural sectors were expected to increase by 119,800 and 45,600 employees, respectively.

The occupational composition of civilian employment was expected to shift towards more skilled workers during the Fourth Plan. The proportion of professional, technical, administrative and skilled workers was expected to increase, while that of unskilled workers to decline.

The Saudi population at the working age was expected to grow at the rate of 3.8%, and the participation of Saudi males in the working force was expected to grow at the same rate. Females participation was expected to increase from 5.1% in 1404/05 to 5.5% in 1409/10. Over all, the Saudi participation in the labor force was expected to increase from 1.78 millions in 1404/05 to 2.16 millions in 1409/10.

To enhance Saudization, the government administration system monitoring the non-Saudi work force should be strengthened and more steps have to be taken to ensure the operation of the private sector in providing employment opportunities to Saudi manpower. There was (and still) a need to ensure that the labor market for non-Saudi workers should operate more efficiently than it has been in recent years.

1.3.3 The Fifth Development Plan (1990-1995)

The fourth objective of the Fifth Development Plan was; manpower development, the continuous stress to increase its supply, and to increase its efficiency in order to meet the requirements of the National Economy.

One of the basic pillars of the Fifth Development Plan was Saudi human resources development with emphasis upon its utilization.

By the time the Fifth Development Plan started, important steps in developing the Saudi manpower skills were achieved and their

contribution in enshouldering responsibilities and productive work, in both the government and the private sectors, had increased noticeably. The Fifth Development Plan gave priority to increase the extend, in depth and breadth, of Saudis potential to cope with the technical patterns prevailing in the Saudi Economy and to decrease the number of unskilled Saudis who enter the labor market before completing their respective educational programs. Since the Saudi future economic development will increasingly rests upon the hands of the private sector, the need for increasing the skills of the Saudi manpower that meets the requirements of this sector became more pressing. The most important challenge facing this sector is that it has to compete with the international standards of products quality, especially when the Kingdom joins the WTO. That is why it became necessary to implement policies, which maximize the utilization of both Saudi and foreign employees in order to enable the Saudi private sector to compete with the international standards. In this respect, a special attention was given in that plan to increase the contribution of women in the labor force in line with the Islamic Teachings, and the Saudi traditions and values.

To achieve the objectives of human resources development in the Fifth Development Plan, the following policies were suggested:

1.3.3.1 Increase job opportunities for the Saudi manpower in the private sector

During the previous development plans (from the first to the fourth plans) it was necessary to encourage Saudi Universities graduates to work in the government sector. Since this sector became saturated with employees and the emphasis inclined towards the private sector to lead the economic development, it became necessary to employ most of the Saudis in the later mentioned sector.

1.3.3.2Bridge the gab between Saudis and non-Saudis wages

Since during the Third Development Plan wages of non-Saudis began to decrease, the gab between their wages and the Saudis wages had increased considerably. This situation gave more incentives for the private sector to prefer employing more non-Saudis than Saudis especially in non-specialized jobs.

1.3.3.3 Improve the Saudi manpower skills

The existing educational and training systems need to improve its internal efficiency to graduate the needed skills and increase the incentives of Saudis newly entering the labor market in a way that enable them to do their jobs more effectively and efficiently.

1.3.3.4Reduce waste in the educational system

Waste in the Saudi educational system is measured by the high annual rates of failures and dropouts. This kind of waste does not mean only loss of money spent in their education, but extend to the negative effect on human resources investment because some of it will not be developed as required. At higher educational levels, late graduation and lower percentage of graduates compared to enrollees of the same year, may reduce the ability of the Saudi Universities to meet the needs of the National Economy.

1.3.3.5 Improve the labor information system

Planners of the Saudi Economy realized since the First Development Plan the importance of instant and accurate labor information and their analysis with the objective of improving the efficiency of the labor market and for proper planning of the development of the Saudi human resources. Inspite of the considerable achievements in this respect, still there is more to

do to develop the labor market in order to increase its efficiency. More have to be done also to improve the informal labor sector database and manpower in rural areas.

1.3.3.6 Increase labor services

The other obstacle in improving the efficiency of the labor market is related to the nature of the required services and their extend which need to be made available to facilitate the match between the Saudi manpower qualifications and the available job opportunities.

1.3.4 The Sixth Development Plan (1995-2000)

The objectives of the labor market development in the Sixth Development Plan were as follows:

- a) To replace Non-Saudis by appropriately qualified Saudis in all occupations and economic sectors.
- b) To rationalize the growth of the non-Saudis labor force in all occupations and economic sectors.
- c) To provide job opportunities for all Saudis entering the job market for the first time, mainly in the private sector.
- d) To increase job opportunities for women in conformity with Islamic Sharia.
- e) To increase the number of graduates with skills and qualifications consistent with the requirements of the National Economy.
- f) To reduce the number of unskilled Saudis entering the labor market before completing their education and training programs.
- g) To develop the labor market services including appropriate statistical information services.

1.3.5 The Seventh Development Plan (2000-2004)

The Seventh Development Plan continued to emphasize labor market development and Saudization. However, this plan concentrates more upon development on human resources, issues related to labor market efficiency and policies, considering the current domestic and international events; such as privatization and the recently expected membership of Saudi Arabia in the World Trade Organization (WTO). That is why this plan emphasizes the following:

- a) Increasing the participation of Saudi nationals in the labor market (Saudization of jobs).
- b) Closing the gap between the educational systems and the requirements of the labor market.
- c) Encouraging the private sector to employ more Saudis instead of non-Saudis.
- d) Providing financial resources and information needed to improve the efficiency of the labor market.
- e) Increasing the productivity of Saudi workers.

With the exception of the fourth point, all of these aspects require training and retraining to be achieved. To enhance the Saudization process Saudi entering the labor market for the first time needs to be trained to satisfy the requirements of the private sector which hesitates to employ them because they lack experience and know-how. As for closing the gap between the labor market requirements and the educational system output, it can only be done by training the newly entering the labor market. The training should be specific to jobs they are planning to engage in. Improving the productivity of Saudis can also be achieved by training targeted for this particular aspect.

So, all Colleges of Technology, Secondary Technical Institutes and Vocational Training Centers, have to gear their curricula to achieve each of the above mentioned aspects for manpower planning to be successful. Even the Saudi educational system has to adapt itself in order to help reducing the gap between its output and the labor market requirements and human resources development.

Tables (1-9) and (1-10) show the expected distribution of the labor force in Saudi Arabia according to sectorial and professional.

Table (1-9)
Employment Structure during the Seventh Development
Plan1420/1421 – 1424/1425 (2000 – 2004)

		yment sand)	Sh (%	are %)	Change			
Description	1419/20 (1999)	1424/25 (2004)	1419/20 (1999)	1424/25 (2004)	Thousand	%	Average Annual Growth %	
Private non-oil Sector.	6,161.2	6,472.2	85.9	86.3	311.0	94.6	1.0	
1.1 Private Producing Sectors:	2,273.3	2,460.6	31.7	32.8	187.3	57.0	1.6	
Agriculture	557.9	582.3	7.8	7.8	24.4	7.4	0.9	
Non-oil Mining	13.2	14.7	0.2	0.2	1.5	0.5	2.2	
 Manufacturing: 	589.0	661.0	8.2	8.8	72.0	21.9	2.3	
- Oìl Refining	21.5	21.8	0.3	0.3	0.3	0.1	0.3	
- Petrochemicals	9.4	10.1	0.1	0.1	0.7	0.2	1.4	
- Other Industries	558.1	629.1	7.8	8.4	71.0	21.6	2.4	
 Electricity, Gas and Water 	93.5	101.5	1.3	1.4	8.0	2.4	1.7	
 Construction 	1,019.7	1,101.1	14.2	14.7	81.4	24.8	1.5	
1.2 Private Services Sectors:	3,887.9	4,011.6	54.2	53.5	123.7	37.6	0.6	
 Trade 	1,036.6	1,071.2	14.4	14.3	34.6	10.5	0.7	
 Transport & communication 	299.2	310.1	4.2	4.1	10.9	3.3	0.7	
 Finance and Real Estate 	334.9	375.2	4.7	5.0	40.3	12.3	2.3	
 Community and Personal services 	2,217.2	2, 255.1	30.9	30.0	37.9	11.5	0.3	
2. Government Services	916.2	932.3	12.7	12.4	16.1	4.9	0.3	
3. Non-Oil Sectors (1+2)	7,077.4	7,404.5	98.6	98.7	327.1	99.5	0.9	
Crude Oil and Natural Gas	98.9	100.4	1.4	1.3	1.5	0.5	0.3	
Sectoral Total (3+4)	7,176.3	7,504.9	100.0	100.0	328.6	100.0	0.9	

The Seventh Development Plan (1420-1424) / (2000-2005)

Figure: Table (1-9)

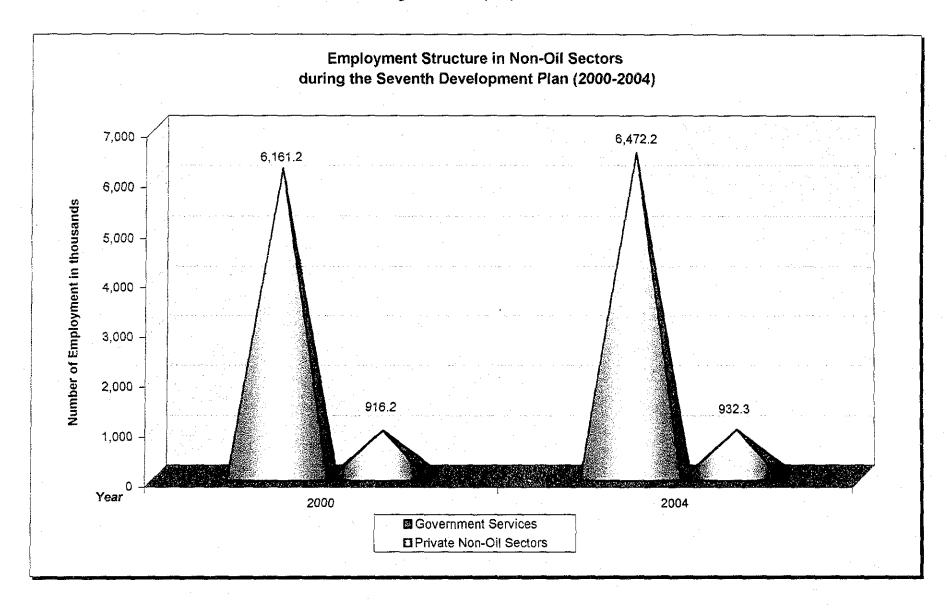


Figure: Table (1-9)

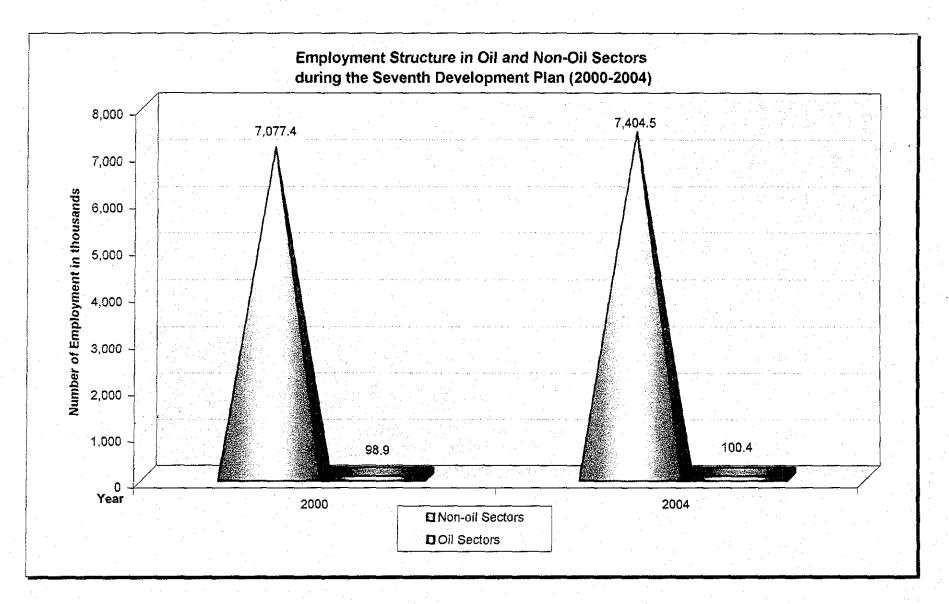


Table (1-10)
Occupational Structure of Employment
In the Seventh Development Plan
1420/1421 – 1424/1425 (2000 – 2004)

Description	Employment Number (thousand)		Emplo Distrik (%		Change			
	(1999)	(2004)	(1999)	(2004)	Thousand	%	Average Annual Growth Rate %	
Professional and Technical Management and Administration Clerical	1122.4 133.9	1159.9 142.9	15,6 1.9	15.5 1.9	37.5 9.0	11,4 2,7	0.7 1.3	
Sales Personnel	534.4	558.4	7.4	7.4	24.0	7.3	0.9	
Services Personnel	507.6 2138.1	528.2 2196.6	7.1 29.8	7.0 29.3	20.6 58.5	6.3 17.8	0.8 0.5	
Agricultural and Related Production, Construction and Transportation	551.0 2188.9	575.1 2343.8	7.7 30.5	7.7 31.2	24.1 154.9	7.3 47.1	0.9 1.4	
Total	7176.3	7504.9	100.0	100.0	328.6	100.0	0.9	

Ministry of Planning, The Seventh Development Plan (1420-1425) / (2000-2004)

Comparing Table (1-9) with the previous respective table, the general structure of the distribution of the labor force sectorially or professionally is not expected to change during the seventh development plan. The ordering of the number of employees in each sector is expected to remain the same, with the exception of the increase in private sector jobs due to privatization.

1.3.6 The Saudi Labor Force Participation

At the beginning of the Sixth Development Plan, the percent of Saudi population at the working age (12 years and over) was only 30.2%. That was due to the young age structure of Saudi population (50% of them were below the age of 13 years), the large number of Saudis enrolled in education and training programs, and the low participation of the Saudi females in the labor force (below 5.5%) during the Fourth and Fifth Development plans periods.

1.3.6.1 Saudization

In spite of the emphasis placed upon Saudization during the Fourth and Fifth Development Plans, the number of foreign labor continued to grow at relatively high rates. Due to the virtual completion of the physical infrastructure in recent years, the demand for labor shifted towards operating and maintenance of the existing facilities using skilled and semi-skilled non-Saudi workers. At the same time, there was a rising demand for unskilled non-Saudi workers in the community and personal services sector. Continuous recruitment of non-Saudi workers will increase the difficulties of job search for non-qualified or poorly qualified Saudis who make up a high proportion of new entrants to the labor market.

Moreover, Saudi entering the labor market for the first time prefer government jobs more than private sector jobs due to better salaries and more job security in the first mentioned sector. The private sector which has the majority of job opportunities tends to prefer foreign workers because their qualifications, training, flexibility in working hours and lower salaries make them more attractive for this sector than Saudis.

As for the government sector, most of the jobs held by foreigners, which were 261,000 positions at the beginning of the Sixth Development Plan, could not be filled by Saudis for the following reasons:

- a) Inadequate number of Saudi graduates in scientific, technological and technical fields in general, and in medical specializations in particular.
- b) Positions suitable for general academic graduates in the civil service had already been filled, particularly in the major cities.
- c) The difficulty for female graduates to move from their place of residence to where the jobs are available.

Figure: Table (1-10)

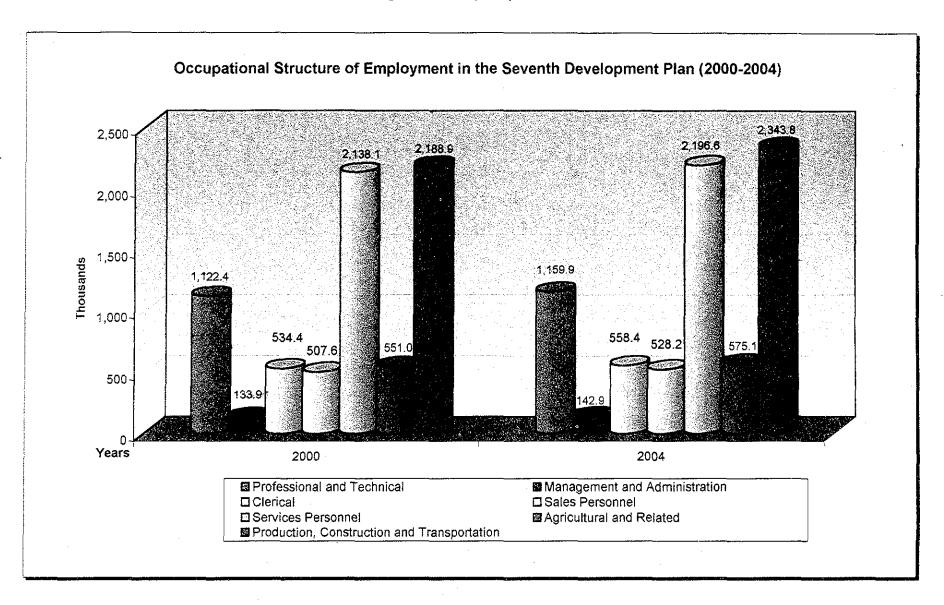
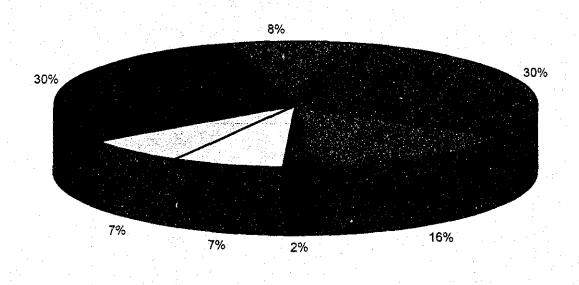


Figure: Table (1-10)

Occupational Structure of Employment in the Seventh Development Plan (2000-2004)



- Professional and Technical
- ☐ Clerical
- Services Personnel
- Production, Construction and Transportation
- Management and Administration
- ☐ Sales Personnel
- Agricultural and Related

1.3.6.2 Government Expenditure on Human Resources Development

To achieve the ambitious goals and objectives set in all the development plans, increasing amounts of money were allotted in each plan for education and training programs.

Immediately after its decision to utilize the huge amounts of money accumulated due to the oil boom in the early seventies of the twentieth century in quick and comprehensive development of the country through five years development plans, the Saudi Government gave first priority to human resources development in order to over come the gab in the labor market. In the mean time it allowed for the recruitment of foreign labor to fill that gab temporarily, before there are enough qualified Saudis to take over the administration of their country. Free education from pre-school to post graduate levels was provided to every qualified and interested citizen being a male or a female. Building schools and universities continued to increase over time. Also, training institutions in both administration and technical fields were opened and enough incentives were given for those who join them.

Table (1-11) shows the expenditure on Human Resources Development during the twenty years period chosen for this study (1980-2000) as reflected in the reviewed four development plans, relative to expenditure on other fields of development which are Economic Resources, Health and Social Affairs and Infrastructure.

Table (1-11)
Actual Expenditure by
Development Agencies during (1980-2000)

	Third plan		Fourth plan		Fifth plan		Sixth plan	
Development Fields	SR. million	%	SR. million	%	SR. million	%	SR. million	%
Economic Resources	192,185	30.7	71,193	20.4	34,100	10.0	48,200	11.5
Human Resources	115,007	18.4	115,133	33.0	164,600	48.0	216,600	51.5
Health and Social Affairs	61,237	9.8	61,882	17.7	68,000	20.0	87,500	20.8
Infrastructure	256,795	41.1	100,738	28.9	74,200	22.0	68,100	16.2
Total	625,224	100	348,946	100	340,900	100	420,400	100

Source: Ministry of Planning, Third, Fourth, Fifth and Sixth Development Plans.

Table (1-11) shows clearly the emphasis placed upon Human Resources Development, especially from the Fourth Development Plan and on, measured by its expenditures during each plan relative to the expenditure on other development fields. Expenditure on Human Resources Development increased steadily from SR 115,007 million in the Third Plan to reach SR 216,600 million in the Sixth Plan. Its percentage share in the total funds allotted to the four major fields of development increased from one plan to another. Its share in the total development fields expenditures was 18.4%, in the Third Plan. became 33% in the Fourth Plan, then jumped to 48% in the Fifth Plan. Since the Fifth Plan, expenditure on human Resources Development out-weighted expenditure on all the other development fields, taken together. In the Seventh Development Plan it will be 61% of the total expenditure on all the development fields. Moreover, the expenditure on Health and Social Affairs are themselves for Human Resources Development.

Human Resources Development emphasizes education and training for both men and women. However, employment of new graduates from all educational and training levels, which is the ultimate

Figure: Table (1-11)

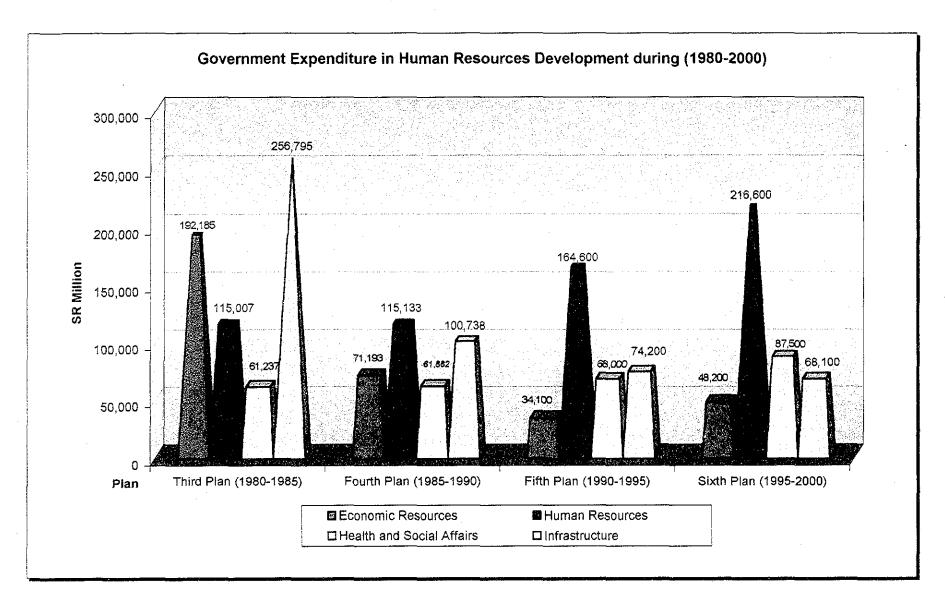
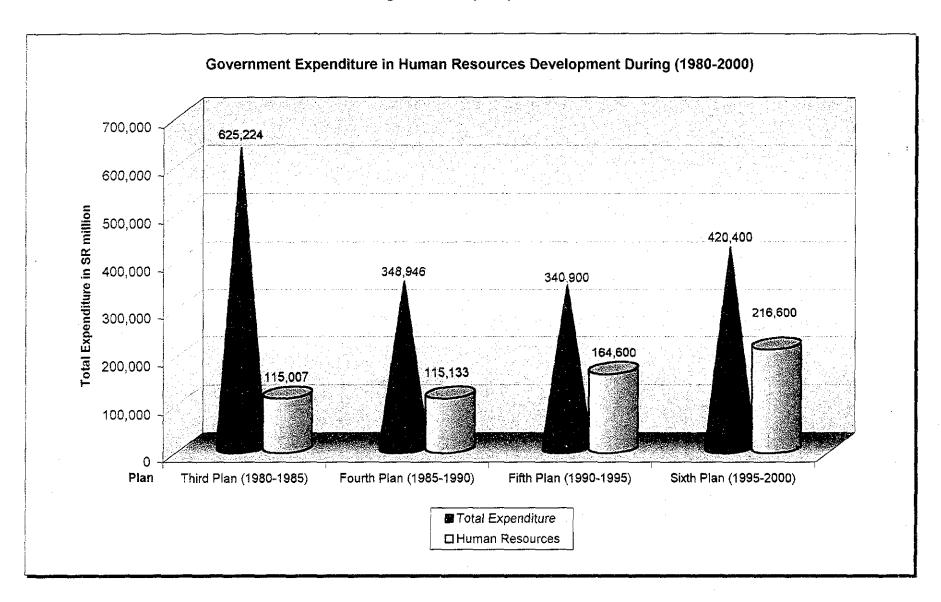


Figure: Table (1-11)



objective of these efforts is being increasingly difficult. The most important reason for that is the saturation of government sector and the high demands of the private sector with respect to qualifications and experience of Saudis newly entering the job market. That is to say, there is no match between the qualifications of the supply of labor and the qualifications of the demand for it. So, unemployment among Saudis newly entering the labor market is basically a structural unemployment, which can be handled only by training and retraining. That is why training became very important issue in this country. The need for training is not only confined to the Saudi graduates newly entering the labor market, but it is also needed by those who are already employed (in the job training) so they can cope with new developments and advances in technology and technical jobs.

Saudization, Privatization and Globalization are all factors affecting the quality of manpower regarding both employees and job seekers at the same time.

As for Saudization, the private sector wants to substitute foreign labor by Saudi labor provided that the quality of the later is the same as or better than the quality of the first mentioned. This will increase the demand for more effective and efficient training and retraining.

The effect of Privatization on the demand for more efficient and effective training is the same as the effect of Saudization. Privatized economic activities will choose more efficient and more qualified Saudis from those who are already working in the privatized activities to continue working in them, and will not be obliged to employ the others. Those who may loose their jobs due to privatization will need retraining to be able to find alternative jobs.

Globalizations effect, especially when the Kingdom joins the WTO, will have greater impact upon the demand for qualified employees;

because international competition in the Saudi markets will intensify, which implies improving the Saudi products quality, which requires, in its turn, quality employees.

For all of these factors, the demand for training before and after employment will increase considerably in Saudi Arabia.

The current training centers in Saudi Arabia, both public and private, do not need only to increase in number and in enrollment capacity to meet the growing demand for training and re-training, but they also need to improve their efficiency, effectiveness and diversity.

1.3.6.3Technological Advancement

The shortage of labor and the huge funds accumulated during the oil boom were enough incentives for Saudi Arabia to adopt technology and insist to acquire and use the state of the art technology in all walks of life, being consumptive or productive. That is to say, the Kingdom's development path should be capital intensive rather than labor intensive. However, most of the labor shortage in this country other than the domestic helpers is in the technical fields of specializations, which justified recruiting foreign labor and expatriates.

According to the Sixth Development Plan King Abdulaziz City for Science and Technology, which is the main body responsible for scientific and technological development in the Kingdom, had supported a wide range of scientific and technological research activities during the last two decades. To encourage innovation among researches and inventors King Abdulaziz City for Science and Technology, protects patent rights which reached by 1994 around 2,716 patents and has provided 1.73 million British and American patent documents.

In the energy sector King Abdulaziz City for Science and Technology adopted intensive programs for the development of solar energy research in the Kingdom. In the oil and petrochemical industries some compounds were developed to be used in the production of rubber and plastic. Remote sensing, astronomy monitoring stations and laser observatories were developed by KCSAT and are currently being used for different purposes.

The utilization of technology by both the Saudi public and private sectors in production and construction, and even in consumption is noticeable in Saudi Arabia.

According to the Sixth Development Plan the key issues with respect to technology development and utilization in the Kingdom are:

- a) To fill in the technology gab between what the Kingdom can do in science and technology and what had already been achieved. This requires greater emphasis on science and engineering subjects in all higher education levels and the completion of the Comprehensive National Plan for the development of science and technology being prepared by King Abdulaziz City for Science and Technology.
- b) Although there are now in the Kingdom eight universities, many colleges of technology and numerous vocational training centers, there is noticeable shortage in scientists, engineers and technicians. That is why the majority of technical and scientific jobs, which represented 15% of the total number of jobs in 2000, are filled by foreigners.
 - More efforts should be devoted to attract students to scientific and technical colleges besides more effective training and retraining of Saudis in these areas.
- c) The utilization of existing Scientific Research Centers is not satisfactory and they are not geared enough towards solving development issues and problems. With the exception of oil

and petrochemical industries, there is very little relevance of conducted research to the industrial and other productive sectors. More efforts should be done to utilize these Research Centers more effectively and productively, especially in industry and agriculture.

Research and development in Saudi Arabia are not needed by the productive sectors only, but they are also needed in the services sectors too. For example, in the health services sector, which is currently utilizing state of the art medical technology, there is further need to increase and enhance the level of research in both preventive and curative medicine. Education also needs to up grade the level of technology it is currently using, especially in audiovisual aids, remote educational technology and the like.

However, the determining factor in adopting and adapting technology is not acquiring the technological products only, but it is the training and retraining of Saudis in utilization, operation, maintenance and imitation of technology.

According to the Seventh Development Plan, the implementation of the development strategy of the Saudi science and technology sector will be through the following objectives, policies and programs:

a) Objectives

- The application of advanced technology in order to rationalize the utilization of economic resources together with extensive efforts in adapting technology to the local conditions and needs.
- Develop and increase databases and connect them with research centers in both the public and private sectors.
- Increase the depth of scientific and technical awareness among students in all educational levels.
- Encourage innovation and increase the opportunities for researchers to conduct scientific and technical research.

b) Policies

- The completion of the long run Comprehensive National Plan for science and technology.
- Support the applied research and technical advances projects.
- Develop science and technology curriculum to catch up with the actual requirements of the different development sectors.
- Strengthen local capabilities and abilities in the fields of consultants and engineering designs because of their importance in importing the relevant technologies and develop them locally.
- Develop a mechanism for linking the activities of research and development sectors with the needs of the productive sector.

c) Programs

The programs of this sector emphasis the support and development the national technology and scientific research base and implement the applied scientific research at the national level in such a way as to serve the national development.

Again, the successful achievements of all of that requires, in the first place, the development of human resources needed to put all of those objectives, polices and programs in the ground by more effective and efficient training and retraining programs.