The following comprehensive survey contains essential information on the region as a whole and is instrumental for placing the Yemen Arab Republic in the geographical, economic and demographic context of the area. Portions of this survey have been excluded to avoid repetition of the information provided in other studies published in this volume.

Urbanisation and Development

With the rapid pace of development and increasing population growth, urbanisation has become the principal factor affecting the pattern of settlements throughout the Arab world.

The rate of urbanisation is having a tremendous impact on the fabric of traditional cities. Many existing towns and cities are undergoing dramatic reconstruction to deal with outdated engineering infra-structure, such as water distribution, sewerage and drainage facilities, and traffic patterns.

In new settlements, too, with the development of new infra-structure and physical plants the living patterns of the inhabitants are likely to change. The problems encountered in many cities are typical of the region where people from rural areas flock to the main urban agglomeration searching for work and better living standards.

Patterns of Development

Development plans in the region are likely to vary substantially from one country to another, but they nevertheless follow several broad patterns. One pattern is typical of those states with small populations and limited area of land. A second pattern predominates in Saudi Arabia with only a small indigenous population, but with vast areas of land. Another determinant of development patterns is financial resources. Countries such as Saudi Arabia and the Gulf States generate their own development from oil revenues which have been responsible for the recent and rapid industrialisation of the predominantly rural Arabian Peninsula.

These development patterns have determined the type of projects made available in the construction field. Countries such as the Gulf States, for example, need to balance building development (e.g. houses, schools, clinics, hospitals) with civil engineering projects such as sewage, water distribution. A limited land mass and small population requires careful planning for short to medium term development. Rich, large countries, such as Saudi Arabia, require a greater civil engineering programme, with a medium to long term strategy. Those countries without the necessary financial resources have to drain investments from elsewhere, and much of their development potential reflects this situation.

The range of projects being carried out in
various parts of the region can be divided into those which are basic to the industrialisation policies of the rich oil states, and those which have buoyant economic demands. Projects in the former group include port developments, airport construction, industrial and agricultural development and road infrastructure. Projects in the latter group include the continuing requirements for housing and urban development, health and education requirements, tourism, leisure and recreational facilities.

Some 55-60 per cent of capital expenditure in the Middle East has been spent on construction, a proportion unprecedented in the developing world. Projects in the former group include port developments, airport construction, industrial and agricultural development and road infrastructure. Projects in the latter group include the continuing requirements for housing and urban development, health and education requirements, tourism, leisure and recreational facilities.

Some 55-60 per cent of capital expenditure in the Middle East has been spent on construction, a proportion unprecedented in the developing world. Some seven years ago expenditure on construction in all the major countries in the Middle East amounted to some $23.5 billion and there are indications that the market will continue to expand, at least in the immediate future. Therefore, the Arabian Peninsula is expected to enjoy a faster rate of growth at least over the next five years than the rest of the world as a whole.

Once the basic infrastructure is completed (and there are still many projects recently awarded or under construction in this field), there will be only a limited number of multi-million dollar projects to be handed out. However, public spending is still showing strong emphasis on the development of better infrastructure, improved urban facilities and the provision of adequate housing accommodation. Enormous construction opportunities exist for a wide range of projects, from road improvements to the building of completely new communities. In the housing field there is a particular need to provide accommodation. This, together with the accelerating price of land, has encouraged the development of high rise buildings and other cost-effective units, such as prefabricated buildings.

The various countries sharing the Gulf Sea have undertaken over a period of two decades a huge development programme comparable in scale to one hundred years of industrialisation in advanced nations such as Britain. For example, investment has amounted to $40 million per kilometre of coastal strip on the Arabian side (in the case of Saudi Arabia, this figure soars to $100 million). Rapid development has transformed an essentially rural economy with a small population into the fastest growing indus-

The Kuwait Towers.
Photo: Mokhless al-Hariri.
Table 1 Oil Rich Countries in the Arabian Peninsula

<table>
<thead>
<tr>
<th>Country</th>
<th>Per Capita GNP (US$)</th>
<th>Current Population (millions)</th>
<th>Average Density (per sq. km.)</th>
<th>Population Growth Rate (% of Total)</th>
<th>Estimated Population 2000 (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kuwait</strong></td>
<td>19,830</td>
<td>1.67</td>
<td>88.4</td>
<td>6.0</td>
<td>7.4</td>
</tr>
<tr>
<td><strong>UAE</strong></td>
<td>26,850</td>
<td>1.08</td>
<td>71.9</td>
<td>13.2</td>
<td>15.5</td>
</tr>
<tr>
<td><strong>Qatar</strong></td>
<td>26,080</td>
<td>0.25</td>
<td>86.1</td>
<td>20.5</td>
<td>7.2</td>
</tr>
<tr>
<td><strong>Saudi Arabia</strong></td>
<td>11,260</td>
<td>8.4</td>
<td>66.9</td>
<td>4.0</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Bahrain</strong></td>
<td>10,684</td>
<td>0.4</td>
<td>78.3</td>
<td>6.9</td>
<td>6.8</td>
</tr>
<tr>
<td><strong>Oman</strong></td>
<td>4,380</td>
<td>0.9</td>
<td>20.0</td>
<td>2.9</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>16,514</td>
<td>2.22</td>
<td>68.6</td>
<td>6.8</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>Yemen Arab Republic</strong></td>
<td>430</td>
<td>7.0</td>
<td>10.3</td>
<td>35.0</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Yemen PDR</strong></td>
<td>420</td>
<td>1.9</td>
<td>36.9</td>
<td>5.6</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Total Population</strong></td>
<td>21.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Average</strong></td>
<td>12,492</td>
<td>2.78</td>
<td>57.35</td>
<td>104.5</td>
<td>5.7</td>
</tr>
</tbody>
</table>


trial region in the world. No less than twenty industrial centres are in operation or in various stages of planning, including in Bahrain the most prestigious dry dock for super-tankers built outside the west and at Jubail one of the world’s largest industrial complexes, while Dubai is striving to become “the Singapore of the Gulf”. According to the United Nations, all investment in industry, infrastructure and social facilities along the entire coast west of Hormuz will be over $80 billion. Undoubtedly such explosions of development are likely to produce many environmental problems.

Population Growth

It is estimated that there are some 700 to 800 million Muslims in the world, some 140 million of whom live in North Africa and the Asian Middle East, while only 21.6 million live in the Arabian Peninsula (Table 1). The impact of development on population growth differs substantially from the oil rich states to the Yemen Arab Republic and Yemen PDR which face problems relating to basic needs common to all developing countries.

Throughout the region, the population is growing rapidly: while birth rates are high (3.5 to 5 per cent annually), death rates are declining (in some countries by 1 per cent or less) due to improvements in nutrition, medical care, safer drinking water and education. The average growth rate for all countries in the peninsula is 6.7 per cent. In particular, growth rates are much higher in cities, the magnets of migration, including the UAE (15.5 per cent), Qatar (7.9 per cent) and Yemen Arab Republic (8.3 per cent).

Thus the population of many of these countries is expected to double within the next thirty years, while Kuwait’s is expected to double in twenty years. At the beginning of this century, the population of the Arab world (including North Africa and the Asian Middle East) is believed to have been about 50 million. By 1975 it had quadrupled and by the year 2000 the total population will have increased to some 255 million. The population of the Arab Peninsula is expected to be 36.5 million (or 14 per cent of the Middle East).

At the turn of the century, one in ten people living in the Arab world as a whole could be classified as urban dwellers. According to the United Nations, by 1970 this ratio had risen to an average of 37 per cent, and, today, to 40 per cent. By 1985 it is estimated that 45 per cent of the population will be living in urban centres, and by the end of the century, about half. According to the United Nations, the rate of urban population growth in the whole Gulf region (including Iran), for example, is nearly half a million annually, requiring almost 100,000 additional dwelling units (corresponding to an annual increase of 91 sq. km. of prepared urban land, with roads, water supply, drainage and other services).
The Arabian Peninsular States

Kuwait (including Bubiyan and the Warba Islands), situated at the head of the Gulf, with Saudi Arabia to the west and Iraq to the north, covers an area of 17,818 sq. km. — slightly larger than Wales. It is mainly flat desert with limited rainfall. Less than eight per cent of this area is used for agricultural purposes, although only one per cent is actually cultivated. Agricultural development is limited by a lack of water, infertile soil and excessive summer heat, consequently most food is imported at a tremendous cost.

The current population is estimated at 1.67 million of which 88.4 per cent are considered urban with an average density of 71 persons per sq. km. According to the World Bank, by the year 2000 the population of Kuwait is expected to be 2.7 million. The population of Kuwait has been growing 7.4 per cent per year. This fast rate is due to a combination of high rates of natural increase (crude birth and death rates are estimated at 39.4 and 4.6 per thousand respectively), and high levels of immigration from abroad. Between 1957 and 1980 Kuwaitis as a proportion of the total population declined from 56.6 per cent to 41.5 per cent. The Planning Ministry estimates that by 1985, the figure will have fallen to 35.3 per cent.

Between 1975 and 1980, the Kuwaiti population increased by only 19 per cent compared to 51 per cent by expatriates. Based on these rates, by the year 2000, the population of Kuwaitis will drop to less than 25 per cent. The current Five-Year Development Plan (1982-1986) concentrates on the establishment of petrochemicals, technical education for Kuwaitis and a steady development in infrastructure with a continuing dependence on imported labour (Kuwaitis make up about 30 per cent of the total work-force). The government is concentrating on capital intensive oil-based industries with small labour requirements. Oil provides some 95 per cent of the government's revenues and 90 per cent of export earnings. At current rates of production there are enough oil reserves to last for some 150 years. However, Kuwait is already making plans for its post-oil era. A reserve fund for future generations has been set up which is not to be drawn until the year 2001. At least 10 per cent (28 per cent until the recent fall in oil prices) of the government's revenues is set aside for this fund.

In addition to setting aside large funds for alternative sources of power, such as solar energy and natural gas, the government is investing in industries other than the petrochemical sector, including manufacturing, cement, chlorine and salt.

The government remains in control of large, long term industries, such as petrochemicals, refineries, fertilisers and desalination plants. There are also plans for future developments, including expansion of the power distribution network. The private sector is active in the production of building materials, fittings and furnishings.

The National Housing Authority (NHA) which has in the past eliminated nomadic shanty dwellings and has built nearly 10,000 homes suitable for the Bedouin, has now undertaken a programme to deal with the current waiting list. Some 28,000 Kuwaiti families are on the housing waiting list and this number grows by 11,000 a year — in spite of the fact that NHA has already provided for some 142,000 Kuwaitis. In the current plan NHA intends to build 36,400 homes (for Kuwaitis only) at a total cost of $3,032 million to solve the housing shortage for 280,000 people. The plan provides 7,952 villas and 3,319 apartments as middle-income homes and 24,255 villas and 874 apartments as low-income homes. The plan includes improvements in size, style, finish and variety in design of housing units. One such improvement is the provision of gardens, with more privacy and play areas for children. A low-income house (without air conditioning) is increased to 500 sq. m., including three reception rooms. The NHA wants to complete all its projects by 1986 and thus to eliminate the waiting list.

New building regulations require a high level of thermal insulation (resulting in substantial effort in the manufacture of insulation building panels). Middle-income Kuwaitis also have the option of receiving serviced building plots with an interest free loan of $126,000. Non-Kuwaitis on the other hand rely on the private sector for housing; available to them are imaginative luxury schemes in the urban centre at high rents. The government is showing concern for the acute housing shortage and aims to co-ordinate an overall housing policy through the Higher Housing Council.

Over the last 25 years, continuing growth and development have more than doubled the urban areas of Kuwait. Kuwait City, the country's main urban centre with 250,000 people has most of its basic infra-structure complete. Other main towns are Hawalli, with 150,000 inhabitants, Salimia with 120,000, Fawaniya, with 55,000 and Abraq Khitan, with 50,000 people. Shuwaikh and Shuaiba are important ports set for further expansion. Kuwait City is expected to accommodate 1.75 million people by the year 2000. There are also plans to improve the quality of life for the inhabitants by introducing a green belt and implementing beautification schemes, including street paving and urban landscaping. Modern Kuwait is destined to become one of the most pleasant cities in the region.

There are also conservation studies dealing with the Suq district and Bebehanni area, part of the Sharq sea front and the museums at Dasman and Qibla. Kuwait has sponsored some of the best architecture in the Middle East and has promoted imaginative urban schemes such as Safat Square and Derwazet Abdel-Razzaq, separating pedestrians from vehicular traffic, both designed by the Finnish consultants Devecon.
are also two major traffic schemes which are estimated to have cost some $1,000 million: the loop motorway around the centre of Kuwait and the extensive Mirdab transport centre. The latter is a nine-storey building with parking facilities for more than 5,000 cars, an encouragement to drivers to leave their cars and take advantage of public transport, taxi and pedestrian access to the centre. In addition there are sports facilities, a health club, as well as restaurants, a bowling alley, a hall for cultural events and exhibitions, and conference centre.

In the luxury hotel sector (which relies almost entirely on business visits), there is now a serious over capacity with rooms available without reservation for most of the year. Because Kuwait hosts neither international fairs nor larger state occasions, hotels rely solely on business travellers and they can be empty for some time followed by only short periods of full occupancy.

Subject to the updating of the Kuwait master plan by British Consultants Colin Buchanan and Partners, new growth areas are being proposed. Fintas is located some 20 km south of the city centre along the coast line and Subiya is some 80 km by road to the north. The wider population to be served by the Fintas centre has been estimated at 500,000 by the year 2000. The other growth area, Subiya, is designed within an area of 20,000 ha. Of this, about 14,000 ha. would be required for the urban area and associated open space for a city of 500,000 people by the end of the century.

In the consultancy field, international firms still dominate, but the market is increasingly shared with local firms. One reason for this increase is due to the fact that the Kuwait Municipality requires local consultants or architects to sign plans and drawings in order to issue a building licence. This ruling applies even when international consultants are appointed by the government. Moreover, Kuwaiti consulting offices are receiving priority in government contracts and the Planning Ministry Committee is considering recommendations which will leave the decision as to whether foreign consultants are required in the hands of local firms. Combining local consultant with prestigious international architectural firms has been successful in the past and has provided Kuwait with some of the best of modern architecture in the region.

Most local contractors are members of important merchant families and their bids are solicited by appeal to the prestige not the profit of the project. In contrast, foreign contractors stand to gain only from the price of contracts. Kuwaitis have also been able to make large sums of money on the stock exchange though this has been somewhat moderated since its 1982 collapse. In general this has allowed them to spread their business interests into various sources of profit. Consequently, prestige is often more important than making money from contracts. Moreover, the Municipality’s reduction of advanced payment from 10 per cent of contract value to 5 per cent favours local contractors who can react more quickly to mobilisation needs than foreign contractors. Local contractors therefore, have considerable advantages over foreign contractors and have also cornered the private sector. Indeed they are becoming serious competition in neighbouring states for construction works.

Foreign contractors on the other hand have the advantage over local firms in their ability to solve highly technical problems and provide managerial skills. They are thus able to provide keen competition in bidding for complex high-technology projects. This competition does not only come from Europe and the United States. The Japanese and South Koreans offer competitive prices. A successful combination is, therefore, to be found in joint ventures, which bring together the resources of international foreign contractors with their specialisation skills and local, long-established firms with their intimate knowledge of the market. Local agents are crucial to the success of foreign contractors in assigning new contracts and carrying out work efficiently in terms of labour, procurements and bureaucratic procedures.

Saudi Arabia covers an area of about 2.15 million sq. km. but only 0.25 per cent of the land is under cultivation which is about a third of the 2 million hectares the government believes can be farmed. The first full census was carried out only a decade ago. In 1974 Saudi Arabia had a population of 7 million. It is now officially estimated at 8.4 million (May 1982), of which about 70 per cent is considered urban. The urban growth rate is estimated at 7.6 per cent per year, with an overall growth rate of 4.4 per cent per year. The World Bank has estimated that by the end of the century, the population is expected to reach 15 million.

Saudi Arabia has enough oil for 60 more years and the fifth largest gas reserves in the world. The government is investing in a programme to collect and process natural gas at an estimated cost of $18 billion. There are also significant deposits of uranium, zinc and gold and silver. With a per capita GNP currently estimated at $11,260, a major proportion of the Kingdom's extraordinary wealth has been concentrated in large industrial projects, including oil refineries, petrochemical plants and steel mills. The intensive industrialisation programme has created a lucrative market for the supply and installation of almost every type of equipment and related service.

A third of the country’s visible imports (totalling $35.2 billion) comes from the USA and Japan, while Western Europe, mainly Germany, UK, France and Italy, accounts for another third. In addition to the basic industrial policy, there are also extensive programmes for large infrastructure projects such as irrigation, flood control and the construction of dams and reservoirs. Some 23 dams have been built in the last five years and 10 more are under construction. However, lack of water still remains a major problem. In the current plan, some $16 billion have
been set aside for exploitation of water resources. A further 250 million gallons per day will be added by means of desalination, making a total of 600 million gallons per day. The new plan will also allocate funds to reduce the 50 per cent loss of water through evaporation and leakage in irrigation.

The Kingdom's first and second development plans were based on a balanced growth strategy, with large capital outlays allocated to infra-structure projects. At least two-thirds of national income has been invested in building projects or state industry and on assets held abroad. Both plans are now regarded as being highly successful. In particular, port congestion was eliminated and gross domestic product growth averaged more than 10 per cent per annum. The current third plan (1980-1985) reduces expenditure on infra-structure and concentrates on manpower training, investment in industrial production and improving the quality of life in the small communities. Excluding defence and foreign aid, the new budget is estimated at $235 billion, which compares with the second plan at $149,500 million.

In the first two plans, the impact of development was concentrated in the cities. So was much of the benefit. The bulk of Saudi wealth is concentrated in Jeddah, where there is a strong tradition of trade and commerce, in the small but rapidly growing cities of the Eastern province, and in Riyadh, the seat of the Royal Family, from where disbursements are made. However, one third of the country's population remains in the rural areas where living conditions are still simple and the average per capita incomes remain low. Despite the Kingdom's vast oil wealth, poverty still exists in the rural areas of the country. Only 65 per cent of the rural population (as compared with 97 per cent in urban areas) have access to safe water. Similarly, only 35 per cent of the rural population has access to excreta disposal, compared to 91 per cent in urban areas.

Table 2  Major Urban Centres in Saudi Arabia: Estimated Populations

<table>
<thead>
<tr>
<th>City</th>
<th>Population (000)</th>
<th>1974*</th>
<th>Estimated 1982**</th>
<th>% of Total Saudi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riyadh</td>
<td>666.8</td>
<td>1,000</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Jeddah</td>
<td>561.1</td>
<td>1,200</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Mecca</td>
<td>366.8</td>
<td>599</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Damman/Al-Khobar</td>
<td>176.6</td>
<td>500</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Taif</td>
<td>204.8</td>
<td>300</td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td>Medina</td>
<td>198.2</td>
<td>340</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Al-Holuf</td>
<td>102.2</td>
<td>150</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>Tabuk</td>
<td>74.8</td>
<td>120</td>
<td></td>
<td>1.4</td>
</tr>
<tr>
<td>Buraidah</td>
<td>69.9</td>
<td>130</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>Al-Mubarraz</td>
<td>54.3</td>
<td>80</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Khamis Mishait</td>
<td>49.6</td>
<td>80</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Najran</td>
<td>47.5</td>
<td>70</td>
<td></td>
<td>0.8</td>
</tr>
<tr>
<td>Abha</td>
<td>30.1</td>
<td>45</td>
<td></td>
<td>0.5</td>
</tr>
</tbody>
</table>

Sources:  *From the 1974 census
**Estimated using World Bank current growth rates and other technical reports.

Small towns, villages and oases, scattered over many parts of the Kingdom, rely mainly on the cultivation of date palm gardens for their livelihood. In the Asir mountains of the south-west, there are more densely populated settlements with fortified buildings. There are also some half million or so Bedouin who still rely on the desert pastures for their animals. They maintain a close relationship with settlements in their areas. These Bedouin are being encouraged to settle and take advantage of health and education facilities and of the conveniences of motor transport and water tanks.

It was in the last 12 years that Saudi Arabia has changed dramatically from a rural to urban society (Table 2), where some 50 per cent of the population now live in fifteen towns with more than 100,000 inhabitants. The major population concentrations are now in Jeddah, Riyadh, Mecca, Medina and the Eastern Province. The Gassim region contains about one million inhabitants (including Buraidah, with 130,000 people). The south-west Asir province contains some 800,000 inhabitants, scattered in more than 4,000 settlements (with Khamis Mushayt containing some 80,000 people and Abha, the regional centre for government spending, accommodating some 40,000 inhabitants). The large conurbations of Jeddah, Riyadh and the Eastern Province boomed during the 1970s, thus draining the smaller towns of valuable manpower resources. Only 16.2 per cent of the people over 15 years old are literate. In a large country such as Saudi Arabia, with scattered small communities in a harsh environment there are many problems in providing education and health facilities. However, the Kingdom is heavily committed to providing such services free. The current development plan has allocated $35,176 million to education alone (about 16 per cent of the total expenditure).

Strong emphasis is being given in the current plan to the problems of population in the Kingdom. The government is now acutely aware of the need to improve the quality of life in the more remote areas, and some 8.7 per cent of the five-year budget is being allocated for this purpose, with strong commitment to regional development. Over $20 billion has been allocated to efforts to minimise the rural drift to the cities by stimulating
regional development and possibly agricultural industries.

Power is now increasingly channelled to the provinces through the Majlis al-Shura (National Consultative Council) thus encouraging the establishment of projects for basic services such as water and sanitation even in the most remote settlements. The Real Estate Fund is spending nearly $13 billion on housing construction, equivalent to about 500,000 dwellings. The Ministry of Public Works and Housing is also concentrating on low-income housing in the rural areas. These policies are likely to continue in the provinces with increasing impetus throughout the 1980s.

However, major cities continue to spend large amounts of money for services and improvements. Jeddah, for example, is spending $600 million on road construction during 1982-3 and there are also allocations for drainage, shore protection, municipal buildings and for planting 300,000 trees as part of a beautification programme. The government is also developing a number of new settlements including Sunrise City, located in the Eastern province between Dharan and Damman, which is planned to accommodate the office of the provincial administration. King Khaled Military City, close to the Iraqi border, has already cost $1 billion in infra-structure and is expected to grow to a population of 70,000.

The government's heaviest commitment is to the development of two of the world's largest industrial complexes at Jubail and Yanbu (some 7,000 contractors have been pre-qualified for this work). As recently as 1978, the existing settlements contained 7,000 and 20,000 inhabitants respectively. By the year 2000 Jubail, located some 80 km from the Al-Khobar-Damman-Dhahran triangle, is expected to grow to a population of 270,000, covering an area of 900 sq. km., while Yanbu, some 350 km north of Jeddah is planned for a population of 150,000 over an area of 150 sq. km. Infra-structure for both these cities is expected to be complete during the period encompassed in the current development plan.

Saudi Arabia is also responsible for organising the vast migration of the Hajj (pilgrimage) into the holy cities of Mecca and Medina, involving over two million people each year. The Hajj takes place within about six weeks thus requiring large facilities to process the arriving pilgrims and to provide them with transport and accommodation. Until the end of World War II, a pilgrimage of 50,000 would have been considered large. Today, cheap charter flights, a large mobile immigrant work-force living in Saudi Arabia, improved road connections, increasing prosperity in the Muslim world and the growth of motorised transport encourage more and more of the faithful to participate in the Hajj. The majority of pilgrims are Saudis, whose numbers are increasing by some two per cent each year, while Hajjis who are immigrant workers, taking advantage of their proximity to the holy places, are increasing by some 18 per cent per annum. In 1982, these two groups together amounted to over 1.1 million and outnumbered the 900,000 pilgrims from abroad.

With a labour force of 3 million people the ratio between nationals and expatriates is currently estimated as 1:3. There are some 600,000 Yemenis, having the easiest access to Saudi Arabia, and constituting the largest pool of legally mobile labour. There are also 250,000 Egyptians and 200,000 Pakistanis. The Lebanese number slightly less than 200,000, while there are also 80,000 Palestinians. South Koreans and Filipinos also number 80,000 each (the latter having doubled in two years). In addition there are about 35,000 Americans and 25,000 British. A major focus of the third plan is on the reduction of expatriate labour from 7 per cent to 1.2 per cent annual growth. The planning minister has expressed the wish to halve the number of aliens in the work-force. However, realistic estimates suggest that it will take some twenty to thirty years for Saudi nationals to take over the labour force.

The construction industry accounted for over 10 per cent of GDP for most of the 1970s. As this construction boom begins to deflate at the beginning of the 1980s, the Saudi Arabian market is still larger than those in other parts of the region. With every ministry in the Kingdom involved in construction, the market is likely to remain important to both consultants and contractors well into the 1990s. Some 60 per cent of all construction opportunities are linked with defence projects, requiring a high standard of workmanship. There are also extensive school and hospital building programmes, urban development schemes and beautification projects, sports and leisure centres as well as opportunities for the provision of utilities of public services for towns and villages. They, in turn, create new markets for materials and equipments, with operation and maintenance services becoming an important extension of construction services. However, although high-level skilled labour will be needed from abroad, competition for work is high, with heavy pressure on prices and profit margins.

All public contracts go through a Saudi agent or partner. Before awarding a contract, first priority is given to local contractors. Where a foreign firm wins a contract, the client is keen to see subcontracting work go to Saudi firms. A third of the 1,170 factories are involved in the production of construction materials. Moreover, the government assists local contractors in competing with foreign firms by breaking down projects into manageable components.

The government is now committed to awarding road and bridge contracts to Saudi contractors. Far Eastern contractors have the overall advantage of cheap labour and are still able to bid successfully for contracts in housing and building projects. In particular, South Koreans are successful in low technology, having some 20 per cent of the market share though
they have been losing ground to other contractors having a local base and access to low cost Asian labour.

Since personal contact is essential in the construction market, European firms have an advantage over North American companies, because they have a longer history of cultural and political investment in the area. Whereas US contractors undertake extensive construction management projects, they only carry out a small proportion of the total work involved with their own labour force. In contrast, European firms tend to bid for short-tender contracts and are willing to take part in joint ventures with local partners and sub-contracting arrangements, thus aiming for a long-term commitment by ploughing back profits into the construction industry.

West Germany has a large share of the market taken by European contractors and is involved in some 20 per cent of all construction work in Saudi Arabia. The proportion is likely to increase as more high technology projects come on to market. West German contractors are noted for high quality prestige buildings, while French contractors have been successful in health and education projects. UK contractors have only a relatively small share of the market and tend to sub-contract specialist work.

Outside of high-technology projects, a contractor remains competitive in Saudi Arabia by being the lowest bidder. This is achieved by undertaking turnkey contracts and careful sub-contracting. The changing construction market is also favouring a movement on the part of local contractors to form joint venture companies. Increasingly, local shareholders are buying their joint ventures outright and are taking on contracts previously handled by western contractors.

Bahrain consists of a group of 33 islands off the Arabian coast, with a total area of 622 sq. km. The GNP per capita is $5,560 while the population is currently estimated at 400,000, with an annual growth rate of 6.8 per cent (this is higher than the rate of natural increase due to immigration). Over half the people live in Manama, the capital of Bahrain Island, and Muharraq, another island linked to Bahrain by a causeway. The population is largely Arab Muslims composed of Sunnis (the ruling group) and Shiis who constitute more than half the population. About 75 per cent are Bahraini, and the rest expatriates. Expatriate Arabs are mainly from Oman (1,400), Egypt (1,200), Yemen PDR (1,100), YAR (1,100), as well as Jordan, Sudan, Iraq, Syria and Lebanon. Asians are estimated at about 16,000 and Europeans about 4,000.

Although oil was discovered in Bahrain as early as 1932, the state is a small producer compared to its neighbours. Current output is now averaging 45,276 b/d with an expected 5 per cent decline of production; it is likely to cease by the year 2000. Some 75 per cent of the government's revenue is derived from oil, but this accounts for only 25 per cent of the GDP, while banking accounts for as much as 10 per cent. Bahrain has already changed from being a modest oil producer to being the Gulf's financial centre. It is also becoming a centre for Gulf industrial co-operation projects. A new diversified economy aims to reduce the impact of the slump in the oil market. With this new role in mind, a four-year economic and social development programme has been formulated, covering the period from 1982-1985. Fifty years of oil production have helped Bahrain to establish a highly developed system of social services including health, education and housing. In fact, the state, through the Ministry of Housing established in 1975, provides a considerable amount of low-cost housing for its citizens, notably in the new Isa Town, now housing more than 8,000 people. The government has established a national housing programme and the Ministry of Housing (which also handles related issues such as physical planning and map making) provides Bahraini families with adequate housing. Some 75 per cent of all Bahraini families qualify for Ministry of Housing assistance.

At present 1,800 dwelling units are realised every year; that is equivalent to one house for every 22 Bahraini families. The current programme includes two new housing areas at Sanabis and Umm al-Hassan and there are plans for a new town, Hamad, recently announced to house a total population of 100,000. Some 30 local contractors participate in the Ministry of Housing programme using modified traditional building methods. The government encourages local contractors to participate in the new phase of development by breaking down contracts to suit management capability. Housing alone will account for $300 million.

Economic activity is beginning to increase during this plan period, as a result of Saudi Arabia, Kuwait and the UAE's aid to Gulf projects, together with Bahrain's own economic stability. The new four-year programme aims to spend some $3,045 million. There are also schemes to be carried out amounting to a further $1,000 million, 75 per cent of which is to be funded externally. These include petrochemical plants and the causeway now under construction between Bahrain and Saudi Arabia. Part of the first seven embankments has already been laid, connecting Bahrain with Umm al-Hassan Island. Designed by Danish Consultants, the causeway is expected to be operational by 1986 and will allow Bahrain access to a wide range of projects in the Peninsula. Some $345 million is also being spent on water projects. Water is being depleted even faster than oil and Bahrain has now undertaken a costly desalination plant construction programme to meet demand. Capacity is being increased tenfold from 5 million gallons to fifty. Other important schemes are the development of the Gulf University and the Bahrain International Airport.

Bahrain remains a highly competitive market and profit margins rarely exceed 10 per cent. However, project spending is
rising by more than 50 per cent, particularly in the provision of infrastructure. The next three years are likely to offer renewed opportunities in the public and private sectors for contractors able to compete in price and quality of work. Local contractors, encouraged by the renewed opportunities in the public and private sectors for contractors able to compete in price and quality of work, are likely to take a larger share of the market, although some of the projects will require international skills and expertise.

Qatar is a peninsula of about 11,000 sq. km. of which only a very small proportion is used for agricultural purposes (less than one per cent). The population is estimated at 250,000, of which only 70,000 are believed to be Qataris. The capital, Doha, accommodates some 190,000 people. By the end of the century, the population is likely to increase to 450,000, of which about a third will probably be Qataris.

About 20 per cent of the labour force totalling 66,000 people consists of Qataris, the remaining being immi grants. Of these, 15,000 are Arabs and there is also a large proportion from Asia. The government is concerned with the disproportionate number of foreign workers and attempts are being made to limit the number of expatriates and where possible to create labour agreements through the Arab Labour Organisation. Such agreements already exist with Morocco, Tunisia, Egypt and the Sudan. Much of the Qatar's foreign labour has been there for years and the sponsorship law passed in 1981 makes it extremely difficult to change from one employer to another.

The current oil production is at 300,000 b/d, generating most of the country's income. In addition, huge offshore gas resources have been discovered at North West Dome which are considered to be one of the world's largest, with reserves estimated at a minimum of 2038.81 billion cu. m. This is a new potential boost to Qatar's future development, where current oil reserves are not expected to last longer than the year 2010.

A detailed study of development opportunities was initiated, and a plan was drawn up and approved by the end of 1973. The plan has provided important guidelines as to how the country would develop into the 1990s. It emphasised the need for acceleration in residential construction and paid special attention to planned growth for Doha as well as to new industrial projects and the development of light industries. With many major industrial projects in place, the government was able to concentrate on social development schemes to meet the needs of Qataris. Doha has been developed on a well-planned basis over the last five years. Dramatic changes are in evidence particularly on the large extension being built in the West Bay area which includes hotels, luxury villas and medium-cost housing as well as embassies. This extension is the natural region for expansion, financed as it is directly by the Amir's Technical Office; it has enormous potential for promoting future projects.

The industrial centre of Umm Said, 40 km south of Doha, is also being developed. In 1981, the huge natural gas processing and petrochemical complex at Umm Said was formally inaugurated and there are opportunities for major expansion during the 1980s.

Further industrial expansion is also being planned at Salwa industrial estate. The present policy, however, is to promote small to medium-size manufacturing ventures. So far, 20 projects to establish industrial concerns have been approved and financing 40 per cent of the total capital outlay has been secured.

In 1981, British consultants, Shankland Cox, produced a master plan for Doha, predicting growth patterns for the state as a whole, until the year 2000. Thus Qatar has emerged from a decade of rapid growth into a new period of stable development. The Amir's approach now is to concentrate on infra-structural and self-supporting diversification. Particular emphasis is given to projects already committed for development.

Urban and infra-structural planning are being based on a possible increase of population to 450,000 by the end of the century. The Ministry of Education, one of the largest spenders in the state, was allocated in the 1982-3 budget a total of $451 million. Qatar's 150 existing schools are expected to double by 1990 and expensive sport facilities are due to be awarded in the future, including Olympic-size swimming pools, sports halls and athletic tracks. During 1983, the new Qatar University is expected to admit 3,000 students (with a second phase already being planned). Other proposed urban schemes include several large sports clubs, new parks and other leisure and recreational facilities.

A network of more than 900 km of good roads provides a ring-road system at the capital and links Doha and Ruwais in the north, Duhaan, Umm Said and the frontier at Salwa. Qatar is now part of a continuous land connection with Europe. Many of Qatar's imports arrive at Jebel Ali in Dubai and are brought into the capital overland. New infra-structure projects include the further development of the cement plan at Umm Bab (with a current capacity of 750 tonnes a day, accounting for 50 per cent of domestic needs) which is to receive planned expansion to produce 1,500 tonnes per day by 1987. This area also contains substantial gypsum, limestone and clay deposits for future developments. A new desalination plant is also proposed, at a cost of $1.1 billion for development in three phases.

As in all parts of the Gulf region, successful contractors have to be competitive. South Koreans and Indians, together with local contractors, create keen competition. Local contractors, with low overheads are gaining confidence at bidding at the right place. Foreign contractors are still preferred for high quality work, but they face problems in producing the volume of work required especially in view of the difficulty they experience in obtaining the right work-force, as a result of labour restrictions and
bureaucratic delays in obtaining block visas.

The United Arab Emirates (UAE) which consists of Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al-Qwain, Ras Al-Khaimah and Fujairah, lies south and east of Qatar. About the size of Scotland, it is one of the richest countries in the world. The Federation was founded in 1971, when the British withdrew from the Gulf and immigration control and postal services were integrated at an early stage. Progress has also been made in "federalising" foreign affairs, justice, communications, health and education.

The development of public utilities, housing, agriculture and roads in the smaller emirates receives assistance from the federal government. However, economic strategy still seems to lack co-ordination. The UAE also has its own army, the Union Defence Force (UDF), formed from the former Trucial Oman Scouts (although several states maintain their own private armies not under the UDF's command).

In December, 1980, a national census was carried out to assist the formulation of the forthcoming five-year plan. The number of people estimated to be living in UAE has grown from 180,000 (1968) to 557,000 (1975) and finally to one million in 1980. The Ministry of Planning has estimated that the UAE labour force has increased from 288,000 (1975) to 538,000 (1980). Immigrant employees form a large proportion of the population (up to 75 per cent has been suggested). They are mainly Indo-Pakistanis but also include substantial numbers of Arabs, Iranians, Europeans and Americans. Last year a law was passed, designated to clamp down on work permit abuses. It also ensures repatriation of labourers after the completion of a project.

With oil production now at 600,000 b/d the Emirates are going through a period of reduced revenue, but without cutting back on priority development schemes. For example, in the oil production and exploration and hydrocarbon related industries, there are 56 projects already in hand and there is a budget of $600 million to cover the period up to 1985. With massive external payment surpluses of $5 billion in 1980 alone, individual projects are unlikely to be held back, although careful selection based on better management is now essential.

The main thrust of spending during the next five years is expected to be in the field of human resource development (e.g. public services, social facilities, higher education). In particular, the UAE University at Al-Ain is a top priority. Another is the supply of services to the small dispersed communities in the desert, including water, electricity and social facilities. Emphasis will also be given to desalination plants, telecommunication related projects and major urban development projects. Systematic planning in Abu Dhabi, Dubai and Sharjah, are equally emphasised.

Abu Dhabi (with a population of 451,000) is the western most of the Emirates, and, with a coast line of 480 km stretching from the base of the Qatar peninsula in the west, to Dubai in the east, it is also the largest. A number of islands off the coast are also part of the state, economically the most important being Das and Abu Dhabi, site of the capital (Abu Dhabi City), just off the mainland to which it is connected by two bridges.

The key factors to human settlement have been the location of traditional water sources and oil wealth, permitting the development of industry and commerce and allowing infra-structure schemes. Today the main areas of importance are Abu Dhabi City (population of 200,000) and its environs as well as Al-Ain with an estimated 75,000 people. Other settlements include Jebel Dhanna on the coast (including the Ruwais area currently being developed for an eventual population of 40,000 to 80,000), Tarir (a small coastal village between Jebel Dhanna, and Abu Dhabi town), settlements related to oil installations in the south, and the Liwa (a collection of villages set around oases now linked to the other centres by road). These settlements have a total population of about 40,000.

Abu Dhabi, with some 85 per cent of UAE spending power, has an extensive programme for public and private construction projects. The Municipality budget on roads alone is $634 million. These include a new elevated road parallel to Salam Street, to carry additional traffic generated by the new suq, and roads and promenades along the corniche development, part of $2 billion commercial complex (which includes twelve blocks of 100 apartment buildings and a new luxury hotel).

Abu Dhabi is also implementing a detailed expansion plan, including a 615 km causeway, linking the main island with Sadiyat, Abu Jabel and Fahad.

Other major projects include a housing project on Das island to be completed by 1988, those undertaken by the water and electricity departments and the armed forces, a maintenance depot and associated facilities at Suweihan, Abu Dhabi's new International Airport Nadja, which is phased to double its current capacity of 3 million passengers, and Al-Ain airport to be built over the next four years. An important project for planning consultants is the master plan for Al-Ain to be undertaken during 1983.

Dubai (with a population of 278,500) is the second largest Emirate, to the east of Abu Dhabi, occupying about 70 km of coast line and extending for approximately the same distance. The territory is mainly desert with little vegetation. Most of the population lives in Dubai City, actually composed of twin towns, Dubai and Deira (now the main commercial area), on opposite sides of a 12 km creek. There are substantial numbers of immigrant Arabs, Indians and Pakistanis, Iranians, Europeans and Americans, and it has been estimated that only 20 per cent of the population is indigenous.

The Dubai Municipality budget for 1982 was US$408 million. A master plan is to
be undertaken during 1983 to include the entire urban area, as far as Jebel Ali, (some 50 km from the city). A major area of concern is traffic congestion. There are also considerable prospects for work in redevelopment, particularly in residential areas. Upgrading is also required for government offices, schools, clinics and commercial properties.

**Sharjah** (with 160,000 inhabitants) is the third largest Emirate and consists of two coastal strips, one about 32 km long between Dubai and Ajman, the other between Ajman and Umm Al-Quwain. In addition, there is the territory in the interior and areas along the east coast of the peninsula, notably around Kalba and Khor Fakkhan, separated from each other by territory belonging to Fujairah. The capital, Sharjah City, is 14 km north of Dubai on the west coast and holds some 75 per cent of the state’s population. In recent years the importance of Sharjah has declined, partly due to the commercial development of Dubai and partly to the expansion of Abu Dhabi. Many low income UAE residents commute to Dubai, due to Sharjah’s lower rents. Recently, however, considerable quantities of gas and light oil have been discovered and land prices are already rising by 20 per cent. This is expected to result in radical changes in Sharjah.

**Ras Al-Khaimah** (population 74,000), one of the larger Sheikdoms, covers an area of 1,683.5 sq. km. and is the most northerly with a coast line of 65 km. The northernmost section beyond Ras Al-Khaimah town includes the town of Rams and the industrial centre of Khor Khuwair. The native proportion of the population is probably larger than in most Emirates, but a sizeable part of the labour force is Indo-Pakistani. Because of the proximity of the mountains, there is more water than in the other states and there are fairly extensive cultivated tracts of land, and even hot mineral springs at Khatt. Ras Al-Khaimah town, the capital, is part of a twin town, Al-Nakhil, on the other side of the Creek. 

**Ajman** (with 40,000 people) is in an area of 259 sq. km. and consists of Ajman town situated on a small coastal strip (an enclave in western Sharjah), together with some interior territories which possess water and minerals. Ajman still depends to a considerable extent on Federal expenditure for expanding its roads, drainage systems, schools and public services. A regional study has been undertaken for the entire Emirate with proposals to improve the capacities of the whole area, as well as the expansion of the town. These also include housing at Al-Gurf and the development of the central area. Some 80 km of road building is now in progress and low-cost housing at Musherif. A vital project is the provision of a sewerage network.

**Umm Al-Quwain** (12,300 people) consists of a town of the same name, situated on a small coastal strip about 30 km long and extending inland about 50 km. This Emirate also benefits from the deployment of Federal funds with provisions made for Federal services such as schools, and police and a hospital expansion. A good deal of housing has been built with “dormitory” intensions.

**Fujairah** (32,000 people) consists of two sizeable main townships, the town of Fujairah itself and, to the north of the mountains, Dibba, both towns being on the coast.

In the rich Emirates competition is keen but the market is small. Abu Dhabi, the largest spender, has over 1,000 firms registered and contracts generally go to the lowest bidder. British companies (well established since the beginning of the Federation) and even South Koreans now face keen competition from local contractors. UAE contractors have various built-in advantages and foreign firms find difficulties in competing. Local contractors (who are already given a 10 per cent advantage over foreign firms on account of tenders) pay only 5 per cent on bid and performance bonds (whereas others pay 10 per cent). They also receive 25 per cent mobilisation costs. Thus, the most advantageous way of gaining work is to enter into joint venture agreements with carefully selected local firms.

**Oman**, the second largest country in the Arabian peninsula, covers an area of 212,500 sq. km. most of which is desert and mountains. Communities are scattered in this terrain and a small enclave at the tip of the Musandan peninsula is separated from the mainland by the UAE. The coast line, itself, on both the Indian Ocean and the Gulf, extends 1,600 km and runs to the north border of South Yemen. Between the sea and the west Hajar, lies the narrow, but reasonably well-watered and fertile coastal plain of the Batinah. Situated behind Muscat, the capital, is the Jebel Akhdar on which there is rainfall, although Muscat itself receives very little precipitation. On some slopes and foothills of the Hajar, fruit and crops are grown by irrigation. Most of the coast of the Arabian Sea is desert, but Dhofar in the extreme south west receives monsoon rains and provides a third agriculture area.

The total population is currently estimated at almost 900,000 mainly concentrated on the Batinah, in the Hajar valleys around the capital and the southern part of Dhofar. The population is growing at an annual rate of 3.1 percent. Oil wealth has resulted in a redistribution of population from the interior to the coastal region of the capital zone. The Muscat-Mattrah-Sib area has grown rapidly and is believed to contain some 80,000 people. The population of Dhofar is believed to be about 60,000 and is concentrated in Salalah, in the west. Salalah has been transformed from a large village into a modern town, with many modern facilities in a very short period of time. A major highway project is connecting Nizwa, the old inland capital with Thamirat in Dhofar and with the road over the Qara mountains to Salalah. But the coastal towns and villages between Salalah and the border with
southern Yemen, were depopulated during the war, and much effort is still needed to restore the population and economy.

The hinterland population is almost entirely Arab, but in the Muscat-Muttrah area, there are substantial numbers of Indians, Pakistanis and Baluchis, providing trained workers and professionals, and there are some Europeans (mainly 6,000 British). The Omanis are an indigenous collection of tribes who have inhabited the mountains and desert for thousands of years and generally have a sense of belonging to their country, a point which differentiates Oman from other states in the Gulf.

Some 97 per cent of Oman's revenue comes from oil. The aim is to achieve a steady production of 320,000 b/d over the next five years. The total labour force is estimated at 23,000, including police and military personnel. Of the Gulf states Oman is generally considered to be the least dependent on foreign labour although larger numbers of expatriates were used in the initial phases of development.

Oman is a country with an agricultural tradition, where the people are still mainly employed in the agricultural sector, and where industrialisation did not begin until the early 1970s. Nevertheless, many Omanis have moved to the cities, undertaking jobs in the civil service, or in the security forces of neighbouring countries. Some 38,100 Omanis are believed to be currently working abroad, mainly in Saudi Arabia (about 17,500) and in the UAE (about 14,000), as well as Kuwait, Qatar and Bahrain. But the drift away from the farms is creating difficulties for agricultural production. Once they leave, people do not generally return to their land and attempts are being made (by means of financial and other inducements) at least to persuade those who are still in the rural areas to stay. There is also an endeavour to persuade the landowners to form co-operatives and use modern methods of agriculture to increase production. Similarly attempts are being made to exploit fishing potential mainly of the south shores of Oman from Masirah Island to Kuria Muria Bay where the region is either sparsely populated or uninhabited.

There has been a general rise in the standard of living in Oman and this has led to an increase in domestic water consumption and demands for its expanded distribution. Until recently, the increased demand had to be met by ground water, affecting water available for irrigation purposes. Now this demand is being met by desalination plants, utilising water from the sea. A good deal of housing has also been built, and a new town (Medinat Qaboos) has been developed west of Muscat. Much has already been completed, involving drainage, water supply and sewerage construction. While in 1970, the capital had no modern water supply, it now receives some one billion gallons a year.

An overall budget of $22,100 million has been allocated in the current development plan (1981-1985) with an emphasis on regional development. Priorities are given to the development of agriculture and fisheries, mining and manufacture. A new town is being built in the remote north area for the Sohar copper project to serve the mining community. Similarly, in Dhofar to the south, where the population lives in the 30 km wide coastal strip, the five-year plan has allocated US $1447 million for development. At the foothills of the Jebel Akhdar, the new township of Al-Khodh, with two 1000-home developments is being provided by the Ministry of Social Affairs and Labour.

The Communications Ministry has the biggest budget, amounting to $1 billion to expand the road network, with particular emphasis on regional accessibility. In 1982, a 780 km highway was completed, linking the capital with Salalah in the south. The road building programme has been a considerable achievement in the development of Oman. In 1970, the country had only 10 km of asphalted roads and within ten years this figure was increased to more than 21,000 km. Another major project is the Sultan Qaboos University, estimated to cost some $900 million, which is to be opened by 1986.

Although British consultants and contractors have maintained a prominent position in the construction market there has been some keen competition from Asians and local contractors in recent years. One reason has been the policy of packaging projects into small contracts, thus placing international contractors at a disadvantage when tendering. Local contractors also have the edge because expatriate staff rates tend to be high and generally mobilisation costs are also more expensive for foreign firms.

Yemen PDR covers an area of 333,000 sq. km. Of which some 28 per cent are used for agricultural purposes. Arable land, at 405,000 ha. (121,000 ha. under cultivation) is only 1.4 per cent of the total land area. The terrain is largely barren: the temperatures are high and rainfall scanty, except in certain mountainous regions. The present population is believed to be 1,900,000 of which about 37 per cent is considered to be urban. By the year 2000 the population is expected to be about 3.1 million.

Due to migration to neighbouring countries (70,000) the population growth rate (2.4 per cent) is lower than the rate of natural increase. The urban growth rate is 3.8 per cent. The crude birth and death rates per thousand are 46 and 20 respectively. Life expectancy at birth is 45 years. There are some 6000 people for each physician and 756 persons for each hospital bed. Of the total population, only about 24 per cent have access to safe water (30 per cent in urban areas). The total labour force is estimated at 463,200 of which 43 per cent are engaged in agriculture and 15 per cent in industry. Outside Aden agriculture is the main occupation and supports most people.

The most important town is Aden, with an estimated population of about
300,000. It is divided into several towns-
ships including Crater, Khormaksar, Ma'alla, Steamer Point, Madinet al-
Shoab (formerly, al-Itthad), Little Aden and Shaikh Othman. The town of
Mukalla in the east has an estimated population of 60,000. Until the closure of
the Suez Canal in 1967, the port of Aden provided most of the area's revenues and
employment. Once the largest harbour between Suez and India, it had a substan-
tial bunking trade. Following the closure of the canal and the withdrawal of the
UK base, there was a dramatic decline in traffic and revenues. Before independ-
ence, bunking used to account for 33 per cent of total exports; this has since
fallen sharply. At the end of 1970, Aden's historic role as a "free port"
came to an end when import duties ranging from 3 to 30 per cent were im-
posed on goods passing through. There is, however, a "free zone" for transit
goods and for tourist shopping. The re-
opening of the Suez Canal raised hopes of greater activity through the port, but
the impact has been disappointing.

Future Trends

A number of factors contribute to make it difficult to generalise about future
trends in the Gulf region. Population estimates in many countries in the Arab
World still remain incomplete and unre-
liable (although some countries, now
have regular censuses). There is a wide variety in the types of nation states
ranging from the small city state of
Kuwait, to large countries such as Saudi
Arabia with complex urban situations.
There is also a wide range of definitions for the process of urbanisation (e.g.
growth in the number of people in urban areas; growth in the number of centres;
the physical extent of urban land; the socio-economic factors contributing to
urban life, etc.). Despite these con-
straints, an attempt is made in this sec-
tion to examine some trends in the future
pattern of growth. We will begin by
looking at trends in the construction sec-
tor, followed by an assessment of the
impact of these trends on manpower and
migrant labour. Finally, we shall suggest
what effect urbanisation is likely to have on the development of cities in the
region.

The market for construction in the Arab
Peninsula is changing from rapid develop-
carried out in the 1970s to carefully
planned growth emerging in the 1980s.
Due to falling oil revenues, money is no
longer freely available, resulting in more
thoughtful planning, with increasing em-
phases on cost-effectiveness. Clients are
better informed about their development
needs and are showing more interest in
the quality of the projects, rather than in
the speed of erection. With increasing
local participation in the construction
sector, more joint ventures are being
undertaken with foreign companies,
under the control of nationals. Land
values are also increasing, thus making
redevelopment schemes attractive.

The market for development and inter-
national construction is no longer expand-
ing at the extraordinary rate of the last
decade. A more modest increase is ex-
pected over the next five years, resulting
in a levelling out, although still on a very
high plateau. Attention has shifted from
the installation of basic infra-structure
and from ambitious development plans to
more socially beneficial schemes, in-
cluding housing, health and education
programmes. The nature of industrial
projects has also changed from extrava-
gant duplication of prestige schemes to
more complimentary and cost-conscious
projects. Contracts in the construction
industry are likely to be reduced in size,
perhaps within the range of $10 million
to $100 million. In many countries large
civil engineering projects are being
done into smaller units as an
incentive to local contractors to compete for the work.

Maintenance of public services and infra-
structure projects already built in the
major population centres during the last
decade will also provide lucrative con-
tracts. Although the maintenance indus-
try is still in its infancy, with 60 per cent
of construction costs in services such as
power, water, drainage and air condi-
tioning, there is obviously great potential
in this field.

Local involvement has expanded greatly
during the last few years. About 600 local
contractors operate in Qatar alone, while
Saudi Arabia now has some 5,000 and
the number is increasing. One advantage
of the new small-scale domestic construc-
tion firms is that overheads are low. They
thus remain competitive in price com-
pared to foreign contractors, who need to
plough back their profits into future
work. The advantage given to contractors
in the member countries of the Gulf Co-
operation Council (GCC) is likely to con-
tinue and the formation of partnerships
between the different nationals in the
region is bound to increase. Such part-
nerships are treated as local firms when
bidding for contracts within the GCC. In
particular, housing and road contracts are
awarded with preference to local com-
panies. While local contracting firms are
gaining in stature and in size, joint ven-
tures, especially in Kuwait, Saudi Arabia
and UAE have become a permanent
feature. It has become almost mandatory
for western contractors to find an Arab
partner.

Far Eastern contractors, particularly the
South Koreans who are state subsidised,
can outbid western contractors by 30 to
40 per cent and still offer acceptable stan-
dards to their clients. South Koreans
have about 20 per cent of the total
market (mainly in Saudi Arabia and the
UAE), as compared with the decline of
US contractors to less than 2 per cent of
the market. Having disciplined labour
forces, they are competitive in building
roads, sewerage schemes, industrial
plants, housing and schools. With back-
ing and subsidies from their government,
they are bidding at less than real cost
prices. However, in spite of remarkable
operating success, South Korean firms
are concerned about the growing number of local construction companies and they are also faced with demands for higher standards of living from their work-force. They have begun employing Far Eastern nationals who can settle for lower wages and have not neglected joint venture opportunities with local contractors.

Other Asian countries having increasing interest in the Arab market because of workers remittances are Indonesia, Thailand, the Philippines, India and Pakistan. Indian contractors have been particularly successful in Kuwait, while Pakistan is well established in the region and Thailand is also keen to secure more projects. Similarly, Indonesia which is now entering the market, has the advantage of being the world's largest Muslim nation. Both Saudi Arabia and Kuwait are committed to giving favourable consideration to bids from developing countries in the Muslim world. On the whole the socio-economic advantages for Arab clients in recruiting labour from developing countries outside the Arab region are likely to increase during the 1980s. The World Bank has estimated that during the decade 1975-85, there is likely to be an increase of 20-30 per cent in the total population of Far Eastern migrants in Arab states.

Western contractors are taking advantage of the demands for their managerial expertise when undertaking large scale projects and seek to combine this with the low operating costs of Asian workers. Such expertise for large projects cannot be under-estimated and involves complex pricing, absorbing legal differences and attitudes in multi-national joint ventures. Careful management is also needed in selecting foreign labour by taking account of wage rates and transport costs, adaptability to the environment, and the level of skills required for the project. However, with increasing insistence and incentives toward the utilisation of local agents, Arab countries are beginning to gradually take over more of the responsibilities for projects, effectively squeezing out foreign firms.

The geographical distribution of projects and development activity in the Arabian Peninsula is also altering. The Saudi Arabian market continues to develop at a steady pace, amounting to more than half of the total market. Currently, some 800 projects are in operation or under consideration (with government accounting for a high proportion of the market). Construction projects are to benefit by some $150 billion during the course of the current development plan. Management and consultancy services in Saudi Arabia are predominantly provided by USA, while major contractors are from Germany, France, Japan and South Korea. Germany and Japan are successful in bidding for high-technology projects. With 80 per cent of the country's exports going to the Middle East, Germany is heavily committed in the region. Japanese success is partly due to the skills provided and partly to financial assistance from the government, particularly in fixed-sum contracts. French contractors are also provided with assistance and support by their government and the nationalised banks.

Although construction activity is declining in the small Gulf states, there are still many large projects under consideration. Kuwait's increased development is likely to continue, concentrating in the private sector, while current major public housing projects are expected to be completed in the next few years. As the influx of immigrants and expatriate labour to Kuwait increases the country's peripheral expansion and the construction of self-contained communities will ensure further commitments to construction. Local contractors are taking an increasing share of the construction market, although foreign contractors have the edge on high technology contracts.

In Bahrain, oil revenues are less limited and while the infra-structure is more or less complete, there is still a need for low-cost housing (although over-building during the boom period has left many expensive villas empty and lavish hotels only half full). The major project is the causeway linking Bahrain and Saudi Arabia, requiring a labour force of some 3,000. The causeway may well give new life to Bahrain, if conditions are appropriate for firms involved in large industrial complexes such as Jubail to establish their headquarters and take advantage of a less austere atmosphere. Another large civil engineering project not likely to be completed before the year 2000 is the drainage and sewerage systems for all inhabited areas of the island. Other new projects for the 1980s include the Gulf University, a tower-block complex east of the capital, prestige commercial buildings and the building of Hamad Town, a self-contained community. Isa Town continues to expand and in less than two years is expected to accommodate some 35,000 people.

In the UAE much of the major infrastructure has already been completed. The industrial cities of Ruwais and Jebel Ali located in Abu Dhabi and Dubai respectively, will be developed throughout the 1980s. During the same period development is expected to take place off the Deira corniche as part of Dubai's expansion plan. In the Northern Emirates, utility services will be developed during this decade. In addition to accommodating a high growth rate, there is a need to replace a large part of the housing stock provided after independence and to ensure better standards of design and construction. Both Abu Dhabi and Dubai have their own building programmes and also assist the Northern Emirates.

In the Yemen Arab Republic, there is currently a lack of skilled manpower. Future expenditure is envisaged in infrastructure, health, education and housing. Various housing studies are being considered to cope with the steady drift to the urban centres, particularly in Sana'a. The Ministry of Municipalities and Housing is organising a large urban development project, planned for 1981 to 1985, costing some 25.5 million (jointly financed by the government and the World Bank). The government is encouraging private invest-
ment in high-standard dwellings for upper income Yemenis, or expatriates, while the World Bank component deals with housing for the low-income groups.

The Impact of Foreign Labour

A useful distinction can be made between the oil-rich countries, such as Saudi Arabia and the Gulf States, with small indigenous populations, and neighbouring Arab countries with large pools of skilled workers. A further distinction should be made in the former group between those states in the northern Gulf, such as Kuwait and Bahrain, which started their development early in the 1950s and those in the lower Gulf area that began their extensive projects in the early 1970s.

The development process demands a substantially unskilled labour force in the early stages, followed by a smaller, but highly skilled work-force once the basic infra-structure has been completed. Thus, respective stages of development, together with geographical factors have had an impact on the characteristics of the work-force imported by each of the oil rich countries. An additional ingredient has been the presence of large numbers of Palestinians in Kuwait, whereas the lower Gulf states such as the UAE relied more heavily on Indians and Pakistanis. Therefore, while the proportion of immigrants in the lower Gulf States has decreased (although in sheer numbers there has been an increase), in the northern Gulf States such as Kuwait, Palestinians and other Arabs constitute a larger proportion of the total.

In order to control the inflow of foreign nationals into the Gulf area, heavy restrictions have been introduced by the oil-rich governments. These include the requirement that all labourers obtain a visa to enter and work into such countries (entry documents are now required even for Yemenis in Saudi Arabia) and the requirement that the sponsoring employer be responsible for his labour force. In addition it is extremely difficult for immigrants to become naturalised citizens and foreigners are often barred from owning property and businesses (even rented accommodation is restricted to certain parts of the cities, as in Kuwait) and are often excluded from high grades in the civil service.

At the same time, there has been serious concern on the part of the Arab labour-exporting countries such as Egypt, Sudan, Syria and Jordan about the loss of their skilled manpower. This has further encouraged the oil-rich states to turn to Asia for their manpower needs, and to develop a more rigid policy of controlling immigration. The advantage to the oil-rich states is that they can draw from an inexhaustible pool of Asian labour. The remittances from Arabs working in the oil-rich states have helped to boost the development plans of the neighbouring less-developed countries. However, the absence of skilled workers in countries such as the Yemen, has contributed to a manpower shortage in implementing these plans, resulting in dramatic increases in land prices, housing and labour costs.

In the oil-rich states, the general levelling out of development and a lesser need for large construction projects imply a reduction in the immigrant labour force. At the same time, the natural increase of population (both, local and migrant) is reaching high levels due to increased health and education standards.

Many Arabs from neighbouring countries such as Egypt, Syria and Jordan are now accompanied by their families, a phenomenon much less common five years ago. Similarly, some 25 per cent of western executives are believed to be accompanied. On the other hand, immigrants from the Yemen and the Sudan show a very high turnover, since they return home to see their families, many to be replaced by others from the same countries. Asian labour is not only cheaper, but also does not entail the relocation of dependents. Consequently, there is less likelihood that they will interfere with the recipient country's social and cultural traditions. Asian contractors, as well as others, include clauses in their contracts committing themselves to the exportation of the labour force once the project is completed.

The alternative to a multi-cultural society (which most Arab countries are anxious to avoid) is to continue training new arrivals from the Far East at the expense of high productivity. Another possible approach is to encourage the development of separate enclaves, not only in the form of communities (such as in the case of Kuwait), but also in the form of separate industrial cities, away from the existing urban centres. For example, the increasing numbers of Asian workers in the oil-rich states are mainly concentrated in work camps located in the new industrial cities of Yanbu and Jubail in Saudi Arabia, Shuaba in Kuwait, Umm Said in Qatar, and at Jebal Ali and Ruwais in the Emirates of Dubai and Abu Dhabi.

The attractiveness of Asian manpower is mainly due to better organised pools of labour, packaged for export from countries such as South Korea with an international expertise in the construction sector. Labour forces provide their own housing. Similarly, food and recreational facilities are brought in by the immigrant work-force (e.g. Filipinos in Jubail). Arab governments also prefer skilled workers who can be employed without their families and who return to their own countries on completion of projects, thus minimising social and political interference with local culture. In short, the labour market remains under the control of the oil-rich Arab States.

Prospects for Urban Growth

The level of urbanisation in the Arab World, as in other areas of the globe, is likely to continue to increase with populations mainly concentrated in a few metropolitan regions. This is likely to
have important consequences for major cities having high population projections. With a limited area of land suitable for expansion, there are strong indications that parts of the Arabian Peninsula could ultimately become as urbanised as western countries.

The rapid pace of urbanisation is one of the most important elements in the modern development of the region. In Kuwait, for example, at least a third of the population live in an urban area of more than 100,000 people. Though the number of small towns (i.e. those with 5,000 to 20,000 inhabitants) has increased, they nevertheless constitute a reduced share of the total country's population. Urban growth is, therefore, overwhelmingly concentrated in the large cities.

To deal with the problems of metropolitan expansion, more efficient policies are required for the large countries and increased co-operation is required between the smaller states. For example, large countries such as Saudi Arabia contain a number of urban sub-systems, while small states in the Gulf are part of a multinational system, whereby national boundaries are not very significant for urbanisation purposes. Urban growth is, therefore, being concentrated along certain areas of communication and future growth is likely to be encouraged along those axes, resulting in elongated metropolitan areas.

The Gulf States, in particular, will require greater co-operation to achieve integration in controlling urban growth along the coastal axis. In spite of an earlier period of competition, some co-operation is already evident (e.g. the establishment of GCC, pollution control in the Gulf, joint industrial co-ordination between Kuwait and Saudi Arabia, the building of the causeway between Bahrain and Saudi Arabia, and the co-operation between UAE and Qatar for exploring oil fields).

Such policies may also reinforce the apparent disparities between rural and urban areas, especially in the availability and distribution of water for agricultural purposes in the rural areas and industrial and domestic use in the urban areas. Due to the harsh environment, rural development is more difficult and expensive, while industrial development is economically more feasible in an urban context, attracting rural labour. Because of migration to urban centres there has also been a significant change in the character of the Arab city, from a place of temporary migration to that of permanent residence. Migrants are likely to continue to be a high percentage of the population in large cities. Serious problems are likely to emerge as a result of the high social aspirations of the rural people and their need to adapt quickly to new urban lifestyles.

Water deficiencies are likely to become more acute, as the process of urbanisation continues. Per capita domestic water consumption is likely to increase from a current average of 150 lpcd to 250 lpcd in the future. Greater emphasis must be put on discovering new sources, more efficient usage and methods of recycling. The need for providing water and other infra-structure services is likely to create a renewed emphasis on utilities in the urban concentrations of the region.

Economical housing solutions are necessary to keep pace with the urbanisation process. This is particularly relevant in the less fortunate Arab countries, such as the Yemen, and increasingly, housing will need to be seen as an integral part of development. So far, outside the oil-rich states, the public sector is only able to provide a fraction of the housing needs for low-income groups. Thus, although inadequate housing is not a new phenomenon in the Middle East, the sheer scale of the problem is causing serious concern to governments and planners.

Many planning authorities in the Arab countries lack the manpower and in some cases, the financial resources to deal with the complex problems of urbanisation. Ultimately it is the role of Arab planners to deal with the many facets of urbanisation in their own countries. Increasingly, Arab planners are involved in urbanisation projects in their own countries. From a practical point of view, this policy should be encouraged as proposals have to be implemented over a long period of time, involving continuous monitoring and maintenance. The urgency of the situation requires a wide network of inventories and records, as well as scientific data to develop practical policies for the future. In view of the wide geographical extent of Arab culture, an international exchange of experience is vital. This is already beginning to take place through the Arab Town Organisation and the Arab Urban Development Institute based in Riyadh. Similarly, the Aga Khan Award for Architecture also attempts to encourage high standards of design. During the 1980s, efforts should be concentrated on establishing an effective system for planning the physical development of urban regions in the Arabian peninsula.