Housing Stock Management Issues in the Kingdom of Saudi Arabia

Saleh A. Al-Hathloul and Narayanan Edadan

Abstract
The impressive growth in housing stock which the Kingdom of Saudi Arabia has experienced during the past two decades is influenced by massive government financial assistance and other housing programmes in the public and private sectors, growth in the real income of the households, demographic changes, and rapid rate of urbanisation. The severe housing shortage experienced during the early phase of economic development prompted the government to formulate an aggressive supply-oriented housing strategy during the Second and Third Plans, creating a housing surplus during the Fourth Plan period. The existing high rate of housing vacancy directed the government to play an indirect and co-ordinating role during the Fifth Plan. Future trends in housing need, however, demand a balanced strategy in housing development, emphasising both quantitative and qualitative aspects of housing, within the framework of national urban land development policy and building regulations.

Introduction
The role of the housing sector in the economic development of the Kingdom of Saudi Arabia has significantly changed during the past 20 years in terms of its contribution to the Gross Domestic Product (GDP), employment and financial sector outlays. Like many other sectors of the national economy, the growth of the real estate sector is mainly determined by the growth of national oil revenue. The GDP contribution of the real estate sector at current prices has grown from 2.9 per cent during the Second Five Year Plan (1975–80) to 3.7 per cent in the Third Five Year Plan (1980–85), but it has decreased to 2.2 per cent during the Fourth Five Year Plan (1985–90). The main reason attributed to this poor performance is stagnation in the housing market, influenced by factors such as: the stabilisation in the number of foreign workers, a slowdown in migration from rural and urban areas and the rationalisation of Real Estate Development Fund (REDF) loans.

An important result of these market forces is the excess overall housing supply, with a large number of vacant housing units, both public and private, particularly in urban areas, and a significant decrease in real estate and rental values (Ministry of Planning, 1990, p385). A limited attempt has been made to examine the extent of housing vacancy and the factors influencing the structure of existing and future housing markets. This paper examines the main structural factors influencing the supply and demand sides of the housing market and identifies some of the policy aspects involved in housing stock management in the Kingdom.

Housing development process
The primary objectives of housing development in the Kingdom of Saudi Arabia during the past four Five Year Development Plans (1970 onwards) are to provide decent and affordable dwellings to all households in the Kingdom and to develop housing within the orderly pattern of urban growth with an adequate and effective institutional framework. Prior to the setting up of public institutions to formulate housing development programmes, the housing industry was characterised by a large number of private agencies. Unorganised banking practice, lack of mortgage facilities
and high construction cost, virtually strangled the housing market during the pre-
development planning period. During the early phase of planned development the housing shortage was so critical that the national development was considered contingent to a great extent on adequate housing (Doxiadis Associates, 1977).

Even though housing has primarily been considered the domain of the private sector, the role of government in housing development has been flexibly formulated to meet various housing challenges during the past two decades. Housing development strategy has gone through several phases including: the laissez-faire housing policy of the 1960s, the active and direct public sector housing for low-income groups and public-sector employees of the 1970s and the indirect and co-ordinated housing development strategy of the 1980s (Fadaak, 1989).

Increased demand for housing and unregulated practices in the building industry demanded active public sector participation and the government established a General Housing Department in 1971 under the Ministry of Finance and National Economy to provide housing for low and medium-income families. Major steps, such as the stipulation of employees' housing by the large establishments, the setting up of the Real Estate Development Fund in 1974 and an independent Ministry for Housing and Public Works in 1976, have been highly successful in stimulating a stagnant and rigid housing market.

The First Development Plan (1970–75) period marked an era of active government participation in housing. The Ministry of Housing initiated several projects, such as the 'Rush Housing Project', 'General Housing Project' and 'Sites and Service' programmes in various cities of the Kingdom. The subsequent development plans responded well to alleviate the housing shortage by allocating massive amounts of resources to finance housing development both in the public and private sectors.

The changing phases of housing policy are reflected through the allocation of planned housing target during the five year development plans (Table 1). Even though the public housing programme during the First Plan was heavily constrained by the paucity of funds, the Second and Third Plans were more aggressively concerned to provide housing for low and medium-income families. Private sector participation in housing gained greater momentum with the liberal government financial assistance and the REDF-financed units comprised as much as 76 per cent of the total private sector housing target in the Fourth Plan. As a result of the easy availability of highly subsidised central housing loans, the share of self-financed housing units in the total private housing sector was reduced from 74 per cent in 1975 to 32 per cent in 1990 (Table 2).

The implementation performance of the housing programme during the plan period was remarkable by any standards. The market rigidities experienced during the First Plan were removed with the setting up of appropri-

<table>
<thead>
<tr>
<th>S1. No.</th>
<th>Housing Components</th>
<th>II Plan</th>
<th>III Plan</th>
<th>IV Plan</th>
<th>V Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Target</td>
<td>%</td>
<td>Target</td>
<td>%</td>
</tr>
<tr>
<td>1. Public Sector</td>
<td>(Sub-total)</td>
<td>52.5</td>
<td>30.1</td>
<td>86.2</td>
<td>32.2</td>
</tr>
<tr>
<td>a) Low-income housing</td>
<td></td>
<td>52.5</td>
<td>30.1</td>
<td>32.9</td>
<td>12.3</td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td>-</td>
<td>-</td>
<td>53.3</td>
<td>19.7</td>
</tr>
<tr>
<td>2. Private Sector</td>
<td>(Sub-total)</td>
<td>122.1</td>
<td>69.9</td>
<td>181.0</td>
<td>67.7</td>
</tr>
<tr>
<td>a) REDF-Financed</td>
<td></td>
<td>31.0</td>
<td>17.8</td>
<td>103.0</td>
<td>38.5</td>
</tr>
<tr>
<td>b) Others</td>
<td></td>
<td>91.1</td>
<td>52.1</td>
<td>78.0</td>
<td>29.2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>174.6</td>
<td>100.0</td>
<td>267.2</td>
<td>100.0</td>
</tr>
</tbody>
</table>


Notes:
1 Other public sector housing includes military, special projects, university and industrial housing.
2 Other private sector housing includes units built without the help of REDF long-term financing.
Table 2  Housing construction performance during the plan period (1970–90) (in '000s)

<table>
<thead>
<tr>
<th>Five Year Plans</th>
<th>Planned Target %</th>
<th>Total Units Constructed %</th>
<th>Rate of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970–75</td>
<td>154.0 (17.5)</td>
<td>75.0 (8.4)</td>
<td>0.49</td>
</tr>
<tr>
<td>1975–80</td>
<td>174.6 (19.7)</td>
<td>203.6 (22.9)</td>
<td>1.17</td>
</tr>
<tr>
<td>1980–85</td>
<td>267.2 (30.3)</td>
<td>437.8 (49.2)</td>
<td>1.64</td>
</tr>
<tr>
<td>1985–90</td>
<td>285.0 (32.5)</td>
<td>172.6 (19.4)</td>
<td>0.60</td>
</tr>
<tr>
<td>Total</td>
<td>880.0 (100)</td>
<td>889.0 (100)</td>
<td>1.01</td>
</tr>
</tbody>
</table>


Note: The Second Plan earmarked a total construction target of 269,900 units, out of which 44,300 were to provide serviced plots and 51,000 were temporary prefabricated units.

Housing stock and vacancy

The level of housing vacancy and its optimum size can vary over time and among housing markets, depending partially on the household mobility pattern and the ‘frictional needs’ of the housing market, but mainly on the composite end of the several housing investment factors. In spite of the economic argument that housing stock embodies and represents the investment of scarce resources and thus the optimum housing vacancy should be zero, it is generally believed that a certain level of vacancy is both desirable and inevitable. This argument is based on the recognition that housing markets are imperfect, vacancies in the housing stock provide some external benefit for housing users by facilitating the ‘filtering process’ and there are economic and psychological reasons for owners to hold unoccupied housing units (Smith, 1970, p145). It is, therefore, desirable to interpret the vacancy rate through the analysis of supply and demand practices in the housing market.

A direct impact of the increased well being and liberal government housing development programme emanating from the oil bonanza is felt both in the demand and supply sides of the housing sector in the Kingdom. The housing market has experienced tremendous growth during the past two decades; the total urban housing units have increased from 0.52 million in 1974 to 1.51 million in 1990, growing at the rate of 11.7 per cent per year. The housing stock increased at a remarkable rate of 14 per cent per annum during the 1975–85 period, but the rationalisation of housing development policy during the Fourth Plan reduced the growth of housing stock to 2.5 per cent per annum during 1985–90 (Table 3).

Continuous government efforts and unregulated practices in the imperfect private housing sector have resulted in a high housing vacancy rate in urban areas. The gross rate increased from 3.4 per cent in 1975 to 35 per cent in 1985 (Table 3). The resulting stagnation in the construction industry and housing market and the flexible government policies slowed the rate down to 13.4 per cent in 1990. This is three to four times more than the gross vacancy rate suggested for the West to facilitate efficient housing filtering (Maisel, 1965) and population mobility during accelerated economic growth (Winger, 1967). Net vacancy rate, a measure of habitable housing adequacy, in Saudi Arabia is 8 per cent of the housing need in 1990.

Structure of urban housing

Table 4 presents a few characteristics of housing in major urban centres in the Kingdom. Regional studies done at the Deputy Ministry for Town Planning during 1979–83 have shown that more than half of urban housing units are independent structures, with 31 per cent traditional Arabic units and 25 per cent indepen-
Table 3  *Urban housing stock and level of adequacy (1974–90) (in '000s)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated&lt;sup&gt;1&lt;/sup&gt; Urban Households</th>
<th>Housing Units Built&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Gross Housing Stock&lt;sup&gt;4&lt;/sup&gt;</th>
<th>Unit Cleared</th>
<th>Net&lt;sup&gt;6&lt;/sup&gt; Housing Stock</th>
<th>Gross&lt;sup&gt;7&lt;/sup&gt; Housing Vacancy %</th>
<th>Housing&lt;sup&gt;8&lt;/sup&gt; Adequacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>539</td>
<td>NA</td>
<td>527</td>
<td>NA</td>
<td>527</td>
<td>-2.3</td>
<td>0.98</td>
</tr>
<tr>
<td>1975</td>
<td>582</td>
<td>75</td>
<td>602</td>
<td>05</td>
<td>597</td>
<td>3.4</td>
<td>1.03</td>
</tr>
<tr>
<td>1980</td>
<td>724</td>
<td>299&lt;sup&gt;3&lt;/sup&gt;</td>
<td>901</td>
<td>26</td>
<td>870</td>
<td>24.5</td>
<td>1.20</td>
</tr>
<tr>
<td>1985</td>
<td>992</td>
<td>438</td>
<td>1,339</td>
<td>25</td>
<td>1,283</td>
<td>34.9</td>
<td>1.29</td>
</tr>
<tr>
<td>1990</td>
<td>1,333</td>
<td>173</td>
<td>1,512</td>
<td>23</td>
<td>1,433</td>
<td>13.4</td>
<td>1.08</td>
</tr>
</tbody>
</table>

Notes
1. The 1974 National Census estimate of 3.192 million urban population is taken as the basis for estimating the urban population.
2. While the average household size for the period between 1974–80 is based on the housing studies done by the M+R International Consultants (1974), the regional studies undertaken by the Ministry of Municipal and Rural Affairs are used for the latter years.
3. Housing Units built is equal to the total number of public and private units constructed during the plan periods.
4. The 1980 estimate of built units includes the planned units and 95,000 units targeted through the provision of serviced plots and temporary prefabricated units.
5. Gross Housing Stock is the total of the stock at the previous year and the additional units constructed during the plan period.
6. Housing Units cleared annually is estimated on the basis of average annual clearance level of 1% of the net housing stock in the year 1974. In view of the rapid changes in the economic growth, social preference, building style and urban land value, this clearance rate is considered as moderate (Wyatt, 1984).
7. Net Housing Stock = Housing Stock + (Housing Units built − Housing Units cleared) \( t + 1 \) \( t \)
8. Housing adequacy indicated through the net Housing Stock/ Household.

Table 4  *Housing characteristics in major urban areas*

<table>
<thead>
<tr>
<th>Regions</th>
<th>Shanty/Zinc</th>
<th>Traditional</th>
<th>Villas</th>
<th>Apartment</th>
<th>Others</th>
<th>Owned</th>
<th>Rental/Free Accommodation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makkah</td>
<td>0.5</td>
<td>29.7</td>
<td>7.4</td>
<td>56.1</td>
<td>6.3</td>
<td>42.7</td>
<td>57.3</td>
</tr>
<tr>
<td>Al Mukarramah</td>
<td>1.8</td>
<td>68.9</td>
<td>16.5</td>
<td>2.8</td>
<td>10.0</td>
<td>95.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Al Baha</td>
<td>1.7</td>
<td>0.4</td>
<td>69.7</td>
<td>0.2</td>
<td>11.8</td>
<td>54.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Al Qassim</td>
<td>7.4</td>
<td>26.3</td>
<td>42.1</td>
<td>24.1</td>
<td>0.1</td>
<td>50.1</td>
<td>10.7</td>
</tr>
<tr>
<td>Tabuk</td>
<td>0.8</td>
<td>0.8</td>
<td>71.4</td>
<td>4.0</td>
<td>5.7</td>
<td>40.0</td>
<td>49.9</td>
</tr>
<tr>
<td>Hail (1983)</td>
<td>3.0</td>
<td>29.4</td>
<td>7.7</td>
<td>54.2</td>
<td>0.1</td>
<td>53.7</td>
<td>46.3</td>
</tr>
<tr>
<td>Madinah (1980)</td>
<td>2.0</td>
<td>83.0</td>
<td>2.0</td>
<td>14.0</td>
<td>6.8</td>
<td>40.3</td>
<td>NA</td>
</tr>
<tr>
<td>Abha (1980)</td>
<td>31.0</td>
<td>9.0</td>
<td>41.0</td>
<td>19.0</td>
<td>72.0</td>
<td>51.0</td>
<td>49.0</td>
</tr>
<tr>
<td>Riyadh (1979)</td>
<td>6.7</td>
<td>22.2</td>
<td>47.4</td>
<td>16.9</td>
<td>0.1</td>
<td>31.8</td>
<td>50.5</td>
</tr>
<tr>
<td>Dammam (1979)</td>
<td>5.9</td>
<td>7.2</td>
<td>54.5</td>
<td>9.7</td>
<td>31.8</td>
<td>50.5</td>
<td>49.5</td>
</tr>
</tbody>
</table>

Source: Regional Planning Studies done for each of the Regions by the Deputy Ministry for Town Planning, Ministry of Municipal and Rural Affairs during the 1979–83 period.

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dent modern villas. Shanty units using zinc and other materials comprise about 4 per cent of the total housing units.¹

A review of housing conditions indicates a significant level of structural problems and design inappropriateness, even though only 26 per cent of the urban housing units are more than 20 years old. Apartments are not very popular among Saudi households and are often built for expatriates. About 50 per cent of the housing units are rented in most of the urban areas and the share of rented units is positively related to the share of apartments, indicating the housing and urban land pressures in the major urban centres. Apartments are more popular in the Western Region, as compared to the popularity of villas in the Central and Eastern Regions. Socio-psychological preferences, scarcity of developable land, climatic and geographic conditions and the concept of privacy are some of the factors influencing the regional variation in housing characteristics (Al Saati, 1987). It is observed that the share of villas has increased during the last 10 years as more Saudis are able to afford them. Large Saudi cities have entered the sub-urbanisation stage in which low-density residential suburbs are built in the peripheral areas of cities and nearby attractive rural environments. The social preference for independent housing units and 'privacy' and the availability of an economic and political environment to realise them have largely contributed to the existing urban sprawl and high vacancy rate in housing and serviced urban plots.

Factors influencing the structure of housing market
The accelerated growth of the housing market and the high housing vacancy rate which the Kingdom has experienced during the past two decades are largely attributed to government incentives such as interest-free loans, generous land grants and other supporting government schemes, as well as to rapid increases in the real incomes of the population, high urbanisation, demographic changes and increasing private sector investment participation in the real estate business.

Public expenditure
The economic bonanza of the late 1970s has tremendously increased the economic resilience of the government to invest significant amounts in building the socio-economic infrastructure of the country. Government expenditure increased from 50 billion Saudi riyals (US$14 billion) in 1970–75 to 2,100 billion Saudi riyals (US$322 billion) in 1986–90 at current prices. The development strategy to diversify the economy and reduce the dependence on oil has been very successful and the value-added share of non oil sector to the GDP increased from 42 per cent in 1970 to 79 per cent in 1990 (Ministry of Planning, 1990, p26).

The construction and real estate sectors responded with vigour to the economic boom. The share of the construction sector in the non-oil GDP has increased from 9.4 per cent in 1969–70 to 15.5 per cent in 1989–90. The growth of the real estate sector has been primarily influenced by the heavy government expenditure on physical and socio-economic infrastructure intended to increase the economic absorption capacity of the Kingdom. However, the oil revenue decline experienced after 1982–83 has changed the structure of government expenditure. The real estate sector contracted substantially between 1985 and 1990, decreasing its share in the non-oil GDP from 5.7 per cent in 1985 to 2.8 per cent in 1990 (Ministry of Planning, 1990). An important consequence of the exponential growth of the construction sector was the influx of expatriate labour. The share of expatriate labour increased from 27 per cent in 1970 to 54 per cent in 1980 (Sirageldin et al, 1984, p32). Concentration of economic activities in a few urban areas in turn increased the primacy of these major urban centres and exerted more pressure on the housing market.

Housing finance
The establishment of REDF, with an initial capital of 250 million Saudi riyals (US$71 million), to provide long-term interest-free loans² is the single government initiative that changed the structure of the housing market in the Kingdom. The performance of the REDF has been exemplary; after 1975 it had distributed 88.4 billion Saudi riyals (US$23.5 billion) for the construction of 440,446 housing units by the end of the 1987–88 fiscal year (Table 5), against a planned target of 331,000 units. This comprised as much as 76 per cent of the total private housing units built during 1970–90. While the REDF loans have proved to be the most popular vehicle for house ownership, they have resulted in a speculative construction boom, which in turn has resulted in a rapid escalation of residential land prices. Many cities in Saudi Arabia, such as Riyadh, Dammam and Jeddah,
Table 5  Performance of Real Estate Development Fund during 1975–76 to 1987–88 fiscal years

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>No of Housing Units Financed</th>
<th>Total Loan Allocated</th>
<th>Percentage of Loan Disbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975–76</td>
<td>41,017</td>
<td>8,197</td>
<td>26.3</td>
</tr>
<tr>
<td>1976–77</td>
<td>64,569</td>
<td>14,578</td>
<td>61.1</td>
</tr>
<tr>
<td>1977–78</td>
<td>6,641</td>
<td>1,232</td>
<td>61.5</td>
</tr>
<tr>
<td>1978–79</td>
<td>45,822</td>
<td>9,364</td>
<td>61.6</td>
</tr>
<tr>
<td>1979–80</td>
<td>42,104</td>
<td>8,645</td>
<td>99.2</td>
</tr>
<tr>
<td>1980–81</td>
<td>36,050</td>
<td>7,341</td>
<td>103.5</td>
</tr>
<tr>
<td>1981–82</td>
<td>39,906</td>
<td>8,511</td>
<td>84.0</td>
</tr>
<tr>
<td>1982–83</td>
<td>43,824</td>
<td>9,933</td>
<td>83.6</td>
</tr>
<tr>
<td>1983–84</td>
<td>36,659</td>
<td>8,273</td>
<td>107.7</td>
</tr>
<tr>
<td>1984–85</td>
<td>33,100</td>
<td>7,552</td>
<td>113.8</td>
</tr>
<tr>
<td>1985–86</td>
<td>23,635</td>
<td>5,443</td>
<td>124.8</td>
</tr>
<tr>
<td>1986–87</td>
<td>13,851</td>
<td>3,157</td>
<td>130.3</td>
</tr>
<tr>
<td>1987–88</td>
<td>14,268</td>
<td>3,249</td>
<td>122.3</td>
</tr>
<tr>
<td>Total</td>
<td>440,446</td>
<td>95,476</td>
<td>92.5</td>
</tr>
</tbody>
</table>


Notes
1 Number of housing units financed includes units under the private housing and investment housing schemes.
2 Percentage of loan disbursed equals the actual loan disbursed shown as a percentage of the loan allocated in a particular year.
3 The average housing units constructed per loan is 1.2 for private housing schemes and 1.12 for investment housing schemes, and on an average 4.6 housing units have been constructed per 1 million Saudi Riyals worth of loan.

became the most dynamic land markets in the world during the 1970s (Boon, 1981).

Private expenditure
Improved economic opportunities and the rapid growth of socio-economic infrastructure have substantially improved the quality of life. The GNP per capita has increased from US$ 400 in 1965 to US$ 8,840 in 1986 at current prices, growing 22 times during the past 21 years, further inducing high demand for housing. Significant government subsidies for food, social services and public utilities have further enhanced the real income of households by about 29 per cent (Ministry of Public Works and Housing, 1987). Provision of cheap housing loans has increased the incomes of households and resulted in the over-consumption of housing, leading to the present trend of leapfrogging of urban areas. The impact of economic growth and housing subsidy have increased the ability of households to move to urban suburbs and consume higher housing services (Telmesani, 1989). The proportion of household expenditure on housing increased from 30 per cent in 1979 to 40 per cent in 1985 (Central Department of Statistics, 1987, p61). During the early stages of the housing boom, the escalation of urban land values resulted in dramatic increases in housing prices and rents, affecting both Saudis and expatriates (Johns, 1977) and the REDF loans even acted as agents for the inflationary tendencies in the Kingdom (Sherrif, 1980). The housing shortages experienced during the early phase of economic development improved the investment viability to build additional housing units and commercial spaces and boosted the rental income of property owners (Sherrif, 1979).

The housing consumption behaviour of households can be better understood through the pattern of growth of housing prices. The stagnation in housing demand before 1973 is reflected in low housing prices. However, by the end of the 1970s the housing market took off, influenced by the high REDF loan, elasticity of private sector housing demand and the high price elasticity of supply, both housing stock and housing services (Figure 1). While the overall growth of house prices has exceeded the increase in general prices between 1970 and 1987, its accelerated growth and the inflationary effects of cheap REDF loan were felt only during the construction lag period of the early 1970s (Table 6). The supply side economic policies followed by the government regarding
the import and distribution of building materials, free land grant, liberal housing loans, and the positive public expenditure elasticity in the private sector housing supply responses, effectively controlled the housing price acceleration and its adverse inflationary effects on the economy during the 1980s. As a result of the continuation of this rational policy, housing prices during the 1978–87 period fell by 2.9 per cent per year. This supply side is mainly responsible for the high general housing vacancy experienced by the sector during the mid-1980s.

Table 6 Annual growth pattern of housing and general cost of living indices (1983 = 100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Housing (Rent + Water + Fuel)</td>
<td>23.2</td>
<td>-2.9</td>
<td>9.5</td>
</tr>
<tr>
<td>2. Housing Furniture</td>
<td>12.4</td>
<td>-1.13</td>
<td>5.3</td>
</tr>
<tr>
<td>3. General Price</td>
<td>14.9</td>
<td>0.17</td>
<td>7.9</td>
</tr>
</tbody>
</table>


Note: The cost of living indices refer to the middle-income urban households.

The incidence of high housing vacancy rates and falling housing prices indicate a saturation of demand in the housing market. This saturation is attributed to factors such as the slower growth of the economy, satisfaction of the immediate housing needs of the population, rigidities in the present REDF loan policy towards rehabilitation and maintenance of existing housing stock, the decrease in the expatriate population and especially, the marginal growth in the real income of the population. This in turn is influenced by the household structure, the removal of government subsidies in many areas of consumption and limited private investment opportunities.

Growth and distribution of urban population

The socio-economic environment in the Kingdom of Saudi Arabia has undergone remarkable changes since the unification of the Kingdom in 1932. A review of the development process indicates that the sedentarisation of the native nomadic population became more intense with the discovery of oil and the establishment of a large number of trading centres, transforming the sedentarisation process of the 1930s to the urbanisation process in the 1960s. The level of urbanisation increased from 15 per cent in 1950 to about 72 per cent in 1986 (World
Bank, 1987), with an annual growth in urban population of 8.4 per cent. The economic prosperity of the oil era, rapid and intense growth of economic and infrastructure sectors, demographic changes and the influx of an expatriate labour force are some of the structural factors attributed to this exponential growth of urban population in the Kingdom (Al Hathloul and Edadan, 1991).

Settlement growth during the 1960s and even early 1970s was concentrated in the major urban 'triad' of Jeddah, Riyadh and Dammam Metropolitan areas (Figure 2). A close examination of settlement distribution shows that 45 per cent of the national population and 70 per cent of the urban population live in the Jeddah, Makkah, Riyadh and Dammam urban areas. Structural analysis of urban primacy indicates that the extent of geographical area and the level of municipal expenditure on urban infrastructure significantly explain the regional variation in urban primacy (Al Hathloul and Edadan, forthcoming). The rapid rate of urbanisation and the primary growth of a few urban centres have placed significant pressure on the residential land and the housing market in the Kingdom.

**Demographic factors**

The intense economic and technological change the Kingdom has experienced in all sectors of the economy has drastically influenced the process of social change in the Kingdom. Transition from a tribal society to a modern vibrant society during the last 40 years was swift. Rapid exposure to the modern ways of life and direct contact with multi-cultural expatriate communities have changed the demographic characteristics, household formation, housing ownership and social aspirations of the people. An independent house is considered as a social symbol of individuality and social identity (Al Saati, 1987).

As a result of the rapid socio-economic change and the transition from a traditional society to a modern society the family became

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**Fig. 2 Urban population change in Saudi Arabia (1974–86)**

![Map of Saudi Arabia showing urban population change from 1974 to 1986.](#)
more nucleated and urbane. There has been rapid progress in the general literacy among the male and female population. The significant increase in the total number of students at all educational levels from 547,000 in 1970 to 2.66 million in 1989 (Arab News, 1989) and the 40 per cent increase in the primary school enrollment registered during the 1965–85 period (World Bank, 1987) have significantly increased social awareness among Saudi youth, and particularly among females.

Increased social awareness has influenced the total fertility rate and the average household size of the Saudi population. Total fertility rate (TFR), which increased during the early phase of economic prosperity, has shown a decreasing trend in recent times (United Nations, 1989, p514), reflecting the positive impact of planned development programmes on the quality of life and household formation. However, the large size of the present child population (48 per cent of the total population) is expected to produce a baby boom in the 15 to 20 years time.

High household formation rates and the resulting demand for more housing is accentuated by other demographic changes such as the decrease in the crude death rate from 26 in 1955 to 7.6 in 1990, infant mortality rate from 200 to 70 and increase in the life expectancy from 40 to 64 during the same period. In spite of these achievements in the quality of life, the possibility that Saudi Arabia will take another 30 years to achieve demographic balance (United Nations, 1989, p81) indicates increasing demand for additional urban jobs and housing in the future.

Urban land development policy

Another important factor influencing the structure and growth of housing development is the current state of urban land development policy and building regulations. The current haphazard and leap-frogging pattern of urban expansion and the decay of many city centres are due to the absence of a national land development policy and unified code of building regulations. The problem of unorganised and sporadic urban growth is compounded by current urban land grant policy and the speculative practices of private developers. In its eagerness to solve housing shortage, particularly among limited-income groups, the government has distributed large amounts of land to people throughout the Kingdom. Since the ownership of land was a pre-condition for receipt of the cheap REDF housing loan, over 80 per cent of the borrowers have been provided with free land grants by the government (Al Riyadh Daily, 1983). The Royal donation of land, comprising of specific Royal grants (Minah Sareiiah), land grant for specific income groups, and grants for private investment projects, has been the main source of land acquisition in the Kingdom and we conjecture from our experience that more than 2 million urban plots have been distributed under the land grant so far.

Unplanned subdivision of urban land by the municipalities implementing the land grant schemes has resulted in unstructured urban growth. Even though the requirement for approval of subdivision has secured many advantages during the period of rapid urban growth, with reservation of land for roads and on-street car parking sufficient to cope with the explosive growth of car ownership, it has suffered from the extreme pressure of land speculation and vacancy of a vast track of subdivided and serviced plots. The areas of approved plots in many towns greatly exceed the requirements for the next 20 years (Deputy Ministry for Town Planning, 1988). Uncontrolled urban growth and over-supply of subdivided and serviced land have outstretched municipal resources to provide urban utilities. The high vacancy rate in the development of serviced plots in all urban areas, an important factor determining the housing supply in the future, therefore, calls for the formulation of a national land development policy, with appropriate measures dealing with urban consolidation, control of land speculation, rationalisation of land subdivision, application of zoning controls to urban development and construction regulations to manage the future housing stock in a planned manner.

Housing stock management issues and future policy perspective

In the absence of a periodically conducted population census various estimates of population are provided by national and international agencies, with a variation of 10 to 20 per cent. According to the Ministry of Planning the present national population is about 14 million and about 75 per cent of them are living in urban areas. Based on the high and low total
fertility rate and mortality rate variants the total population in the year 2000 is estimated to be in the range of 20 to 21 million and the share of urban population is expected to increase to 82 per cent in 2000, forming an additional 1.1 million new urban households during the 1990–2000 period (United Nations, 1988, p515).

As compared to the massive construction phase of 1975–85, the Fourth and Fifth Five Year Plans have aimed to consolidate the existing housing stock by rationalising the REDF loans and have significantly reduced public sector housing participation with an intention to increase the direct investment participation of the private sector in housing. Based on the 1985–90 rate of housing construction, the total number of urban housing units is expected to reach 1.8 million in the year 2000, leaving a housing shortage of 25 per cent. Urban housing should grow at least at the rate of 6.8 per cent per year (about 2.5 times more than the 1985–90 growth rate), if the housing need generated by the growth of additional households is to be met and dilapidated and un-economic existing structures are to be replaced.

An important element of housing development in the future, therefore, should not only be the construction of additional units but also the management of the existing stock. The changing socio-economic environment of urban areas generates new challenges in housing. Future strategy in housing should concentrate on quantitative and qualitative aspects. One of the main strategies in future public housing policy is to restore and rehabilitate existing structures by expanding the scope of housing finance to existing units. In fact, the current practice of not providing rehabilitation loans for upgrading old properties and allowing old or traditional mud houses to degenerate and consequently to be eliminated from the current housing stock was criticised in the early 1980s (Boon, 1982). Future housing development strategy should aim, therefore, to strengthen the private sector participation in housing by improving its capacity to provide a variety of housing products.

One of the important issues in the management of the future housing stock is the consolidation and planned growth of urban areas in the Kingdom. The existing leap-frogging and low-density sparse growth of urban areas should be contained through urban spatial consolidation and structured development of cities for the optimum utilisation of the existing urban infrastructure inventories. The suggestion that the government should control urban sprawl by refusing to provide urban infrastructure for the unplanned subdivision, even if socially and legally reasonable, requires careful review as an effective policy mainly due to the traditional rights and social preference of Saudi citizens to build their houses on free plots of reclaimed desert land. This practice has created unsightly sprawl and ribbon development along the main traffic corridors of many cities. Future land development policy, therefore, should take into consideration traditional land rights (Chard, 1986, p12) and Islamic jurisprudence (Llewellyn, 1980).

As a first step, the government has initiated a national policy to define the urban growth boundaries for all 100 municipalities in the Kingdom (Council of Ministers, 1985) and entrusted the Deputy Ministry for Town Planning, Ministry of Municipal and Rural Affairs, to formalise the growth boundaries of all cities and towns and prepare long-term urban development strategic plans. These plans are being prepared within the framework of the National Spatial Strategy (Deputy Ministry for Town Planning, 1989) to achieve urban consolidation and structured development of settlements. Implementation of these development strategies is expected to achieve the efficient utilisation of existing urban infrastructure and organised development of settlements in the Kingdom.

Conclusions

The growth of the housing stock in Saudi Arabia went through distinct phases of critical shortage in the early 1970s, housing surplus and high vacancy rates during the period of 1975–85, and housing stagnation during the latter part of the 1980s. During the early phase of planned development, the housing shortage was so critical that national economic development was considered contingent to a great extent on adequate housing. The oil bonanza of the late 1970s, however, provided the much needed funds to embark on an ambitious national housing development programme. As a result, the total urban housing stock grew at the rate of 11.7 per cent per annum in the 1974–90 period. The growth rate has significantly reduced to 2.5% per annum in 1985–90. An important consequence of the rapid growth in the housing sector during the second phase
was the high vacancy rate – as high as 35 per cent in 1983.

Many factors are attributed to this unique Saudi Arabian experience of housing vacancy. The stagnation in the growth of additional units had reduced the gross vacancy rate to 13.4% in 1990. Rationalisation of public expenditure policy, slowing down of the national economy, and rigidities in the private sector housing finance, have contributed to this.

An important implication of this growth process is that the present housing surplus is likely to be wiped out in the future and the country will experience a situation of housing shortage unless and until adequate housing stock management policies are formulated and implemented. Projection of the existing trend indicates that the country is likely to face a housing shortage of about 25 per cent in the year 2000.

Future housing development strategy, therefore, should concentrate not only on quantitative aspects of stock generation, but also on managing the existing stock through restructuring existing financial and land development policies. This calls for a comprehensive housing development strategy based on the coordinated programming of urban land, finance, public infrastructure and the building industry. A broadening of the scope of RDEF home finance to existing units and to the restoration and rehabilitation of existing structures, formulation of urban land development policy and private sector investment participation in home finance are some of the policies required to manage the future 'felt need' of housing in the country.

Notes
1 The unprecedented growth of Saudi Arabia in the early 1970s gave rise to a phenomenal growth of cities and towns. International consultants were appointed to prepare the first generation of regional plans for five planning regions and master plans and action master plans for a number of major urban cities. During this planning phase (1970–80) five regional plans, 30 master plans and seven action master plans were prepared. During the 1980s, the Deputy Ministry of Town Planning has instituted a 'second generation' of comprehensive development plans for Hail, Tabuk, Makkah, Qassim and Baha regions. The urban household size estimate is based on Muwad (1987).
2 The RDEF finances housing development in the private sector by providing two types of housing loans: personal loans for private housing and investment loans. The RDEF long-term interest-free loans to private housing cover a maximum value of 70 per cent of total building costs, up to a maximum of 300,000 Saudi riyals. The investment loans may cover 50 per cent of the total costs, up to a maximum of 10 million Saudi riyals.

Private housing loans are paid off over 25 years, starting from two years after the loan payment. A Royal Decree issued in 1980 granted a 20 per cent discount for each instalment paid on the due date and another 10 per cent discount on the total value of the loan if the loan is fully repaid on time.

Even though the process of nation building started in 1764 with the subjugation of Riyadh by Emir Muhammad Ibn Saud, the systematic national unification process had begun with the control of Riyadh by King Abdul Aziz III Ibn Abdul Rahman Al Faisal in 1902. The process started with the integration of Riyadh and Najd in 1902–04, culminated with the British recognition of the Kingdom as a sovereign state by the Treaty of Jedda in 1927 and the declaration of the Kingdom of Saudi Arabia in 1932. The present boundary and area control of the Kingdom was completed by the Treaty of Taif in 1934.

The Council of Ministers' decision (28 August 1985) to freeze all urban expansion for two years in all 103 municipalities was intended as an austerity measure and to achieve efficient use of existing urban infrastructure and services. The Ministry of Municipal and Rural Affairs, particularly the Deputy Ministry for Town Planning, was instructed to prepare, in collaboration with local authorities, a master plan, called the urban boundary study, for each city. These strategic plans should be phased into short, medium or long-term phases and they should be in general conformity with the national and regional economic development plans.

Islamic jurisprudence includes the concept that resources that are scarce and indispensable cannot be monopolised by individuals, they should be considered as free goods held in trust by community leaders for the benefit of everybody. Unlike many other Arab countries, foreign laws and legal concepts and regulations are not incorporated in the land laws of Saudi Arabia. The Saudi government policy is that laws should be strictly based on the established laws of Islam and sharia courts. Although these concepts are upheld in disputes, they have not so far been developed into detailed codes of practice (see also Safak, 1980).

The National Development Planning conceptual framework is based on the hierarchical system of national, regional and local planning system and the development strategy is based on the growth – pole – centre approach. The basis of this strategic framework is set out in the National Physical Planning Strategy for Settlement (NPPSS) (1980–2001) and the National Spatial Strategy (1990–2010) prepared by the Deputy Ministry for Town Planning, Ministry of Municipal and Rural Affairs. The main elements of this proposed strategy are: efficient utilisation of the existing infrastructure and services, capitalising on the economic potentials of selected growth centres, improving the spatial accessibility to higher functions, integration of growing urban areas with adjacent lagging areas, development of marginal areas and comprehensive development of rural areas. To achieve these objectives, the strategy has used the concept of development corridors and its functional integration with the isolated regional development nodes.

References
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